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Y2K TECHNOLOGY CHALLENGE: WILL THE POSTAL SERVICE DELIVER?

JOINT HEARING

BEFORE THE

SUBCOMMITTEE ON THE POSTAL SERVICE

AND THE

SUBCOMMITTEE ON GOVERNMENT MANAGEMENT, INFORMATION, AND TECHNOLOGY

OF THE

COMMITTEE ON GOVERNMENT REFORM

AND THE

SUBCOMMITTEE ON TECHNOLOGY

OF THE

COMMITTEE ON SCIENCE

HOUSE OF REPRESENTATIVES

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Y2K TECHNOLOGY CHALLENGE: WILL THE POSTAL SERVICE DELIVER?

TUESDAY, FEBRUARY 23, 1999

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON THE POSTAL SERVICE, JOINT WITH THE SUBCOMMITTEE ON GOVERNMENT MANAGEMENT, INFORMATION, AND TECHNOLOGY, COMMITTEE ON GOVERNMENT REFORM; AND THE SUBCOMMITTEE ON TECHNOLOGY, COMMITTEE ON SCIENCE,

Washington, DC.

The subcommittees met, pursuant to notice, at 10 a.m., in room 2154, Rayburn House Office Building, Hon. John McHugh (chairman of the Subcommittee on the Postal Service), Hon. Stephen Horn (chairman of the Subcommittee on Government Management, Information, and Technology), Committee on Government Reform; and Hon. Constance Morella (chairwoman of the Subcommittee on Technology), Committee on Science presiding.

Present: Representatives McHugh, Horn, Morella, Miller, Bartlett, Gilman, Biggert, Gutknecht, Turner, Stabenow, Gordon, Wu, and Rivers.

Staff present from the Subcommittee on the Postal Service: Robert Taub, staff director; Heea Vazirani-Fales, counsel; Jane Hatcherson, office and systems administrator/legislative assistant; Abigail D. Hurowitz, clerk; Denise Wilson, minority professional staff member, Committee on Government Reform; and Jean Gosa, minority administrative staff assistant, Committee on Government Reform.

Staff present from the Subcommittee on Government Management, Information, and Technology: J. Russell George, staff director; Bonnie Heald, communications director and professional staff member; Matt Ryan, policy director; Mason Aliger, clerk; and Faith Weiss, minority professional staff member, Committee on Government Reform.

Staff present from the Subcommittee on Technology: Richard Russell, staff director; Ben Wu, professional staff member; Joe Sullivan, staff assistant; Mike Quear, minority professional staff member; and Marty Ralston, minority staff assistant.

Mr. MCHUGH [presiding]. Let me call the meeting to order and wish everyone, “Good morning” and my personal words of welcome.

This is somewhat of a unique meeting today, in that we are joining not just another but, in fact, two other subcommittees, for a total of three. Two of which have been designated as the, “experts,” on the year 2000 problems. My good friend on my left—only figuratively speaking—from California, Mr. Horn, fresh from a starring engagement on the “Today” show, and his role as the chairman of the Subcommittee on Government Management, Information, and Technology. And my other good friend, Mrs. Morella—Connie, how are you—and her chairmanship over the Subcommittee on Science and Technology. Rather than a joint hearing, I suppose we could consider this a “trifecta” of sorts—[laughter]—and I certainly welcome the opportunity to join my distinguished colleagues in this hearing today. I know we all look forward to having the benefit of the testimony and input of our very distinguished witnesses.

This is certainly a serious matter that must be addressed fully—and I want to emphasize the word “fully”—and must be addressed within the next 311 days for those of us who are counting.

The Postal Service has stated that it is assigning a high priority to addressing the Y2K problem and is spending a significant amount of money on that effort. The Service has estimated that the total cost of fixing its Y2K problem could be one-half to three-quarters of a billion dollars. Given the importance of the Postal Service’s mission to all Americans, whether at home or at their place of business, we must ensure that this problem is and, of course, stays on track.

The Postal Service faces a major challenge in updating its computer system to correctly identify dates beginning in the year 2000 and, thus, avoid malfunctions that could significantly, even disastrously, disrupt mail delivery. The Postal Service has a special responsibility in this regard because it is likely that a number of private-sector and Government groups may need to utilize the agency as a backup delivery system if their computers malfunction, raising concerns about the prospect of a mail surge in January of next year.

An early assessment by the Inspector General showed that the Service was slow to recognize the scope of this problem and failed to take the necessary actions early on to ensure that its computer systems were indeed Y2K compliant.

More recently, the Postal system’s November 19, 1998, quarterly report to the Office of Management and Budget, on its efforts in this matter, indicated progress in its meeting the challenge. The Service’s remaining tasks include completing the adjustment of its computers so that they are all completely compliant, fully testing computer systems, and, of course, preparing contingency plans to help ensure continuity of core business operations.

Our witnesses today include the Postal Service’s Inspector General, the General Accounting Office, and the Postal Service, itself. The Inspector General has been working closely to assess and monitor the Service’s progress, and we certainly look forward to her insights and recommendations.

The GAO has also been evaluating the postal situation, and that office, I believe, can provide some context given its assessments of the Y2K problems encountered in other Federal agencies of similar size and scope such as the Department of Defense. And, of course, we are anxious to hear firsthand from the Postal Service on the progress it has made in overcoming its early difficulties as identified last year by the Inspector General.

As I stated at the outset, given the importance of the Postal Service’s mission to the American public, close oversight will be needed to ensure that its year 2000 program stays on track, and today's hearing, we all hope, is one step in that very important process.

And with that, before we go to our witnesses, I would be happy to yield to my good friend, Mr. Horn, who actually came to me with the idea of this hearing. So I am really relying upon him to make us all look smarter than I think I am. But with that, I would be happy to yield to the gentleman from California.

[The prepared statement of Hon. John M. McHugh follows:]

Statement of the Honorable John M. McHugh, Chairman
Subcommittee on the Postal Service
Y2K Hearing – February 23, 1999

Good Morning. The Subcommittee's second meeting in the 106th Congress will come to order. I welcome all of my colleagues.

This is a unique Subcommittee meeting in that we are joined by the two House Subcommittees designated by the Speaker as "the experts" on the Year 2000 problems – both Mr. Horn's Subcommittee on Government Management, Information, and Technology, and Mrs. Morella's Committee on Science's Technology Subcommittee. Rather than a "joint" hearing, I suppose we could consider this a trifecta, of sorts. I welcome these Subcommittees to our hearing today, and look forward to having the benefit of their thoughts and expertise on this matter.

And it is a serious matter that must be fully – and I emphasize the word "fully" – addressed within 311 days. The Postal Service has stated that it is assigning a high priority to addressing the Year 2000 problem, and it is spending quite a bit of money on it. The Service has estimated that the total cost of fixing its Year 2000 problem could be a half, to three-quarters of a billion dollars. Given the importance of the Postal Service's mission to all Americans, whether at home or at work, we must ensure that its Year 2000 program is, and stays, on track.

The Postal Service faces a major challenge in updating its computer systems to correctly identify dates beginning in the year 2000 and thus avoid malfunctions that could disrupt mail delivery. The Postal Service has a special responsibility to correct its computers to avoid Year 2000 problems because a number of private sector and government groups may need to use the Postal Service as a backup delivery system if their computers malfunction. For this reason, the Postal Service is concerned about the prospect of a mail surge in January 2000.

An early assessment by the Postal Service's Inspector General showed that the Service was slow to recognize the scope of the challenge and take necessary actions to ensure that its computer systems were Year 2000 compliant. More recently, the Postal Service's quarterly progress report to the Office of Management and Budget in February 1999 on the state of Year 2000 efforts indicated progress in meeting this challenge. The Service's remaining challenges include completing the adjustment of its computers so that they are Year 2000 compliant, fully testing computer systems, and preparing contingency plans to help ensure continuity of core business operations.

Our witnesses today include the Postal Service's Inspector General, the General Accounting Office, and the Postal Service itself. The Inspector General has been closely assessing and monitoring the Service's progress, and we look forward to her insights and recommendations. While the GAO has also been evaluating the Postal situation, it can provide some context given its assessments of the Year 2000 problems at other federal agencies of a similar size and scope, such as the Department of Defense. And, of course, we want to hear first-hand from the Postal Service on the progress it has made in overcoming the early difficulties identified last year by the Inspector General.

As I stated at the outset, given the importance of the Postal Service's mission to the American public, close oversight will be needed to ensure that its Year 2000 program stays on track. Today's hearing is one step in the process.

Mr. HORN. Well, I thank you. As chairman, you have done a wonderful job over the last few years we have been colleagues in reviewing the Post Office. Thank you for calling this hearing.

If I might, I am going to only read one or two sentences from my opening statement. Mr. Chairman, I would like to have the statement put in the record as if read at this point.

Mr. MCHUGH. Without objection, so ordered.

[The prepared statement of Hon. Stephen Horn follows:]

DAN BURTON INDIANA
CHAIRMAN

ONE HUNDRED SIXTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON GOVERNMENT REFORM
2157 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6143

HENRY A. WAXMAN CALIFORNIA
RANKING MINORITY MEMBER

"Y2K Technology Challenge: Will the Postal Service Deliver?"

OPENING STATEMENT
REPRESENTATIVE STEPHEN HORN (R-CA)
Chairman, Subcommittee on Government Management,
Information, and Technology
February 23, 1999

There are only 311 days left to reassure the American taxpayers that both public and private computer systems, which are critical to our lives, are Year 2000 compliant. Unfortunately, even today, many private organizations and governmental entities are only beginning to recognize the potential impact of this problem. Some are just starting to fix their systems, leaving little, if any, time for one of the most important aspects of the remediation effort – adequate testing.

The problem is real; the consequences, serious; and the deadline, unmovable.

As you know, the House Subcommittee on Government Management, Information, and Technology, which I chair, has focused on the potential problem since early 1996. Yesterday, my Subcommittee issued its seventh report card. By and large, it showed considerable improvement throughout the Federal Government. However, much work still remains. We will continue to steadfastly monitor the Federal government's Year 2000 readiness and prod those departments and agencies that lag behind.

I look forward to hearing from our witnesses this morning on the Postal Service's preparation for the Year 2000 technology challenge. The Postal Service is arguably the Federal Government's largest business, and with nearly 775,000 employees and 38,000 Post Office branches, the organization moves about 650 million pieces of mail each day. As citizens, we sometimes take the services of the Post Office for granted—how easy it is to simply mail letters, receive paychecks, send payments, and mail packages overnight. The Postal Service function is absolutely essential to sustaining the American economy.

But what do we really know about the Postal Service's Year 2000 readiness? It recently reported that 70 percent of its 156 mission-critical systems are now compliant — which is a modest 12 percent improvement since November.

We also know that the Year 2000 hits the Postal Service at its busiest time of the year — in the fall and around the holidays — when the daily volume of mail increases.

Furthermore, we have found that the Postal Service is one of the major contingency plans for all governments, individuals and businesses that conduct business and personal affairs electronically. That brings about some interesting questions:

- Will the Postal Service's mission-critical systems be ready for the Year 2000 OR will we revert back to the time of the Pony Express?
- Is the Postal Service prepared to potentially handle a large increase in the amount of mail it may have to move because of Year 2000 computer problems within other industries?
- Finally, what is the Postal Service's contingency if its systems go down?

One thing is certain: the mail must go through. Today, I hope to be reassured that the Postal Service will continue to deliver. I welcome today's witnesses and look forward to their testimony.

Mr. HORN. I think I can say this about the Post Office Department. Based on my experience, 30 years of living in Long Beach, CA, I have never had one single complaint about the Post Office Department. You have a marvelous group of people out there. Mr. Good, I think a lot of you know, who headed the Long Beach operation and was moved around the country in a couple of cases to salvage those operations. They run a fine system. I have been in every single branch post office in that district at least four times over the last 6 years. And, again, both clerks, letter carriers have done things with a smile.

So, I don't come at this from being "dogged" after the Post Office Department. But I come at it because, as the chairman said in his opening remarks, everybody else's contingency plan, if their electronics and computers don't work, all of them are depending on the post office. We have enough trouble with the ones that have computers, and we hope they will work, and not just in the Federal Government, but in the society, in general. But, again, we are going to be really "up a creek" or "down a creek," whatever the phrase is, in needing your help, because January 1, 2000, is right in the midst of your major rush of the year. If everybody is mailing 43 million checks or 10,000 checks in a small business, whatever it is, they are going to need your help.

So, one of the things I hope will come out of this hearing is some understanding of how you can be the contingency person of the American society.

If we can hold the rest for questions—I am going to have to step out at 10:45 for about a half an hour, Mr. Chairman, but I will be back.

Mr. MCHUGH. I thank the gentleman.

There really is no order of seniority. Well, there is, of course—[laughter]—but we are not adhering to any kind of rank here. We have, as I said, three subcommittees, and of course a lot of Members, I know, will be coming in and out and the fact that we are going to our third Chair this morning, as the third spot has absolutely no relevance to anything other than that seems to be the way it worked out.

But with that, I would be delighted to yield to Chairwoman Connie Morella for any comments she might like to make.

Mrs. MORELLA. Thank you, Mr. Chairman.

I appreciate your holding this hearing, with the three subcommittees coming together, because we recognize what an important issue this is and how important the Postal system is to all Americans and to all people who are in the United States and, as a matter of fact, throughout the world.

So, I am pleased to be here. We talk about three Chairs; maybe we need to look at the table here that we have before us.

Delivery of the mail, of course, is so fundamental to our Nation that it would be unthinkable for us to not have it. And yet, just as in virtually every large business, and the Postal Service is a quasi independent agency, is arguably the largest business in the Federal Government with over 700,000 employees handling over 185 million pieces of mail annually, the Postal Service is also being bitten by this millennium bug. So, the Postal Service must take every available necessary action to correct the Y2K computer glitch, especially in this age of highly automated mail delivery.

The problem is that, due to initial inadequate leadership and lack of management priorities, the Postal Service only began to dedicate sufficient resources, personnel, and funding to the issue much too late. And as a result, there are justifiable concerns about the Postal Service's ability to be fully Y2K compliant before January 1, 2000. And that deadline is like 311 days away.

I have been assured that, despite these concerns, the Postal Service is determined that in the new millennium anyone who drops off mail at the post office should remain absolutely confident that their letter or package will arrive at its intended destination, even if it has to be manually sorted or even if it needs to be delivered by Pony Express.

I have no doubt that getting the mail there will not be a problem, but the Y2K challenge may ultimately give a stark, grim truth to the old excuse, "the check is in the mail." The possibility of significant business interruptions exist if the Postal Service isn't able to operate in the same manner as it does now. And these business interruptions could potentially affect our Nation's economic stability. If there is no confidence that the Postal Service can deliver the mail in a timely manner, then businesses and others will turn elsewhere when a letter or a package absolutely, positively needs to get there.

These concerns about the Postal Service are especially pronounced because, in many cases, the Postal Service is the contingency plan for organizations and individuals that conduct business electronically.

Assuring the American public that the Postal Service will have, at worst, minimal Y2K disruptions is vital. It is vital to maintaining the trust and confidence that the institutional has held for over 200 years.

To help us achieve that goal, we have a distinguished panel of witnesses from the Postal Service, the Postal Service Inspector General, and the General Accounting Office. Both the Inspector General and the GAO have issued a series of specific recommendations to guide the Postal Service in its operations and we appreciate that.

I am looking forward to reviewing the recommendations with the Postal Service, determining the current status. I expect this hearing will be very helpful in guiding the Postal Service toward making the necessary changes in the short time remaining so that we can be confident that, "through rain, snow, sleet, hail, or Y2K," our Nation's mail will be delivered in a timely manner.

And, Mr. Chairman, I just want to announce that young people are interested in this hearing, too. There is a class here of information technology students from a high school in Maryland. It is not in my district, but it is Springbrook High School, and I am pleased they are here because they wanted to come and to listen and to learn from this hearing.

I yield back.

[The prepared statement of Hon. Constance A. Morella follows:]

Opening Statement of
Congresswoman Constance A. Morella
Chairwoman, Technology Subcommittee
House Science Committee

The Impact of Y2K: Can the Postal Service Still Deliver?

Joint oversight hearing on the status of the Year 2000 challenge
at the United States Postal Service

Tuesday, February 23, 1999
10:00 a.m. - 12:00 noon
Room 2154 Rayburn House Office Building

I am pleased to chair this morning's hearing and join my colleagues from the Committee on Government Reform's Postal Service subcommittee and Government Management, Information and Technology subcommittee in this first Congressional hearing on the impact of the Year 2000 challenge to the United States Postal Service.

Delivery of the mail is so fundamental to our nation, it would be unthinkable for us not to have it.

Yet, just as in virtually every large business – and the Postal Service, as a quasi-independent agency, is arguably the largest "business" in the Federal government with over 700,000 employees handling over 185 million pieces of mail annually – the Postal Service is also being bitten by the millennium bug.

So, the Postal Service must take every available necessary action to correct the Y2K computer glitch, especially in this age of highly automated mail delivery.

The problem is that due to initial inadequate leadership and a lack of management priorities, the Postal Service only began to dedicate sufficient resources, personnel, and funding to the issue much too late.

As a result, there are justifiable concerns about the Postal Service's ability to be fully Y2K compliant before the January 1, 2000 deadline – just 311 days away.

I have been assured that despite these concerns, the Postal Service is determined that in the new millennium anyone who drops off mail at the post office should remain absolutely confident that their letter or package will arrive at its intended destination – even it has to be manually sorted or even if it needs to be delivered by Pony Express.

I have no doubt that getting the mail there will not be the problem, but the Y2K challenge may ultimately give a stark, grim truth to the old excuse "the check is in the mail."

The possibility of significant business interruptions exist if the Postal Service is not able to operate in the same manner as it does now.

These business interruptions could potentially affect our nation's economic stability.

If there is no confidence that the Postal Service can deliver the mail in a timely manner, then businesses and others will turn elsewhere when a letter or a package "absolutely, positively" needs to get there.

These concerns about the Postal Service is especially pronounced because in many cases, the Postal Service is *the* contingency plan for organizations and individuals that conduct business electronically.

Assuring the American public that the Postal Service will have, at worst, minimal Y2K disruptions is vital to maintaining the trust and confidence that the institution has held for over 200 years.

To help us achieve that goal today is a distinguished panel of witnesses from the Postal Service, the Postal Service Inspector General, and the General Accounting Office (GAO).

Both the Inspector General and the GAO have issued a series of specific recommendations to guide the Postal Service in its operations.

I am looking forward to reviewing these recommendations with the Postal Service and determining their current status.

I expect this hearing will be very helpful in guiding the Postal Service towards making the necessary changes, in the short time remaining, so that we can be confident that through rain, snow, sleet, hail, or Y2K, our nation's mail will be delivered in a timely manner.

Mr. MCHUGH. Well, thank you, Connie. We appreciate your kind comments and your leadership on this issue.

And, we certainly welcome the high school students who have joined us, as we welcome all of our guests.

One of the positive things about having three Chairs is you also have three ranking members who are associated, and we have been joined with one already, the ranking member on the Government Management, Information, and Technology Subcommittee who serves faithfully with Mr. Horn, and Mr. Horn tells me does a terrific job as well, Mr. Turner, the gentleman from Texas. I would be happy to yield to him at this time.

Mr. TURNER. Thank you, Mr. Chairman.

I would like to thank Chairman McHugh, Chairman Horn and Chairwoman Morella for holding this hearing today on the status of the Postal Service Y2K conversion efforts.

It is hard to imagine that we have 640 million pieces of mail flowing in this country every day and 38,000 postal facilities. You certainly have a challenge ahead of you to be sure that you are Y2K compliant. It is my understanding that a concentrated effort is being made, and I commend you for doing that.

They tell me much work remains to be done. I am told that there are 148 of the 156 most-critical systems that have been repaired and in service and ready for Y2K, but only 40 of those systems have actually had their respective repairs tested and verified. I am also told that you have much work to be done in the area of contingency planning. If there is anything that I would think the American people would expect from the Federal Government is to be sure that their mail is delivered on time on January 2, 2000.

So, I commend all of you for your efforts, and we look forward to hearing your report to us today.

Thank you, Mr. Chairman.

[The prepared statement of Hon. Jim Turner follows:]

Statement of the Honorable Jim Turner
Postal Service and GMIT Subcommittees: "Will the Postal Service Deliver?"
February 23, 1999

I would like to thank Chairman McHugh, Chairman Horn, and Chairwoman Morella for holding this hearing today to discuss the status of the Postal Service's Year 2000 conversion efforts. As we all know, this task presents a significant challenge, and with only 311 days left, the job must be completed in a manner that renders quick yet effective results. As others have pointed out, if electronic systems for transferring funds, for making salary payments, paying benefits, and sending messages and documents fail, people will mail these funds, payments, or documents. In other words, mail is the backup for most electronic transmittals.

While we all may envision our postal delivery system in the most simplistic terms —with the postal delivery person delivering mail door-to-door through rain, sleet, or snow—the reality is that modern-day mail delivery relies heavily on a highly mechanized or computerized system. In fact, the postal service uses automated systems to deliver over 198 billion pieces of mail per year —which amounts to 3.8 billion pieces per week or 640 million per day. Computer systems are a necessary and integral part of a process that works to accomplish a multitude of responsibilities, ranging from operation assistance to the 38,000 postal facilities nationwide to ensuring simple administrative tasks such as the payment of salaries and benefits for approximately 800,000 postal service employees.

While a concentrated effort is now being made, the Postal Service has gotten off to a slow start in addressing its Y2K concerns. Mainly, the agency was unaware that its heavily-automated mail delivery systems were susceptible to Y2K problems. Moreover, independent testing showed problems with some of the earlier repairs. Because testing wasn't begun on a system until that entire system was repaired, progress was too slow. The Inspector General at the Postal Service has done a good job identifying these issues so that they could be addressed.

The good news is that the concerns raised by the Postal IG are now receiving the attention of Postal Service management personnel. High-level management of the Postal Service has acknowledged the need to apply additional resources to addressing Y2K issues. Nonetheless, it is troubling to learn that the most recent IG report, of February 18, 1999, indicates problems exist with regard to the reliability of the Y2K information being reported by the Postal Service and the consistency of the attention being given to Y2K by senior management.

Much work remains to be done. Although 148 of the 156 most critical systems have been repaired and placed back into service, only 40 of these systems have had their respective repairs tested and verified, which leaves the Postal Service with a substantial task. In light of the long road which lies ahead, significant emphasis will need to be placed on the quality of the Postal Service's contingency planning efforts. The Postal Service has only just begun to consider its contingency planning strategy for Y2K. Still further, it is worth nothing that standard contingency planning efforts most likely will not suffice, given the likelihood that public and private organizations will become more reliant on the Postal Service come the Year 2000 and will mail materials rather than send them electronically due to their own Y2K problems.

Before concluding, I would like to quickly address a particular concern which I have regarding the reliability of mail service to rural areas in the Year 2000. The people of the Second Congressional District of Texas rely heavily on the mail for most all they do -- including both business and personal communications. On behalf of those residing in the rural areas throughout the nation, I ask that the Postal Service focus proper attention on these community post offices to ensure that their needs are being adequately addressed.

In closing, I urge you to recommit your efforts to assure that Y2K repair and testing efforts are completed as quickly and accurately as possible.

Mr. MCHUGH. I thank the gentleman.

We have something of a logistics challenge here this morning for the three subcommittees, because we will have Members coming and going. We are joined already by Judy Biggert, the gentlelady from Illinois who serves as the vice chair of the Government Management, Information, and Technology Subcommittee; Gary Miller, the gentleman from California who serves on the Technology Subcommittee; Roscoe Bartlett, another fine Member of the House from Maryland. I would be happy to yield to any or all of you if you would care to make any opening comments.

Mr. MILLER. Thank you, Mr. Chair——

Mr. MCHUGH. Mr. Miller.

Mr. MILLER [continuing]. For conducting this hearing today on the status of the year 2000 challenge at the U.S. Postal Service. I think it is important that we draw attention to the vital role the U.S. Postal Service will play at the start of the new millennium. As we discussed in the January 11th joint hearing which addressed the Y2K problem at the Federal, State, local, and foreign governments, failure to identify and prepare for both the probable and worst-case scenarios could result in consequences ranging from mere inconvenience to long-term impairment of the economy.

It was ironic; I met with my local bankers last week, and the amount of concern generated at that level was rather alarming. You have to hand it to the technology companies when they sold stock and created the concern over this problem. They did a very, very effective job. I think our job today is to create a more calm environment that this issue is really going to be dealt with.

I am hopeful that the testimony and the questions brought forth today will help us prepare for the year 2000.

Once again, Mr. Chairman, thank you for holding this hearing.

Mr. MCHUGH. I thank the gentleman for his comments.

Any other Members wish to—Mr. Bartlett.

Mr. BARTLETT. Mr. Chairman, when I talk to our constituents, I find more variability, less consensus, about what the Y2K problem will do to us and about any future event. So I am here today to listen with great interest to the preparations of the Postal Service and their prognostications of what will happen to this vital part of our society in the year 2000.

Thank you very much for convening this hearing.

Mr. MCHUGH. I thank the gentleman.

The gentlelady from Illinois.

Mrs. BIGGERT. Thank you, Mr. Chairman.

I, too, look forward to hearing from the witnesses today on this Y2K challenge, and I know that certainly the year 2000 will come at the Postal Service's busiest time. And so I know that the American public and the Congress will be assured that the mail will be delivered on time and look forward to hearing those assurances.

Thank you very much.

Mr. MCHUGH. I thank the gentlelady.

With that, that brings us to the substantive part, we hope, of today's hearing and that would be, of course, testimony.

As some of you who have appeared before the full committee and/or some of its subcommittees in the past know, it is committee rules that all witnesses must be sworn. If you would please rise.

I would also note, for the record, that although not seated at the head table, Mr. Carl Urie, who is Assistant Director of Governmentwide Defense Systems of GAO, will also be sworn from some place in the audience. So, if all of the aforementioned would rise.

[Witnesses sworn.]

Mr. MCHUGH. The record will show that all of the participants affirmed and acknowledged the oath in the affirmative.

And with that, we welcome you here this morning. Thank you for your patience. As you have heard from all of the Members here today, this is a—generically and specifically—to the Postal Service, a very pressing problem, one that concerns us all deeply, as I know it does you. We are looking forward to your testimony. We will begin, as the hearing notice indicated, with Ms. Corcoran, the Inspector General of the U.S. Postal Service.

Karla, welcome. It is good to see you again. Thank you for being here, and our attention and our time is yours.

STATEMENTS OF KARLA W. CORCORAN, INSPECTOR GENERAL, U.S. POSTAL SERVICE, ACCOMPANIED BY RICHARD F. CHAMBERS, DEPUTY ASSISTANT INSPECTOR GENERAL FOR AUDIT, OFFICE OF THE INSPECTOR GENERAL, U.S. POSTAL SERVICE; JACK L. BROCK, DIRECTOR, GOVERNMENTWIDE AND DEFENSE INFORMATION SYSTEMS, ACCOUNTING AND INFORMATION MANAGEMENT DIVISION, U.S. GENERAL ACCOUNTING OFFICE; CARL M. URIE, ASSISTANT DIRECTOR, GOVERNMENTWIDE AND DEFENSE INFORMATION SYSTEMS, ACCOUNTING AND INFORMATION MANAGEMENT DIVISION, U.S. GENERAL ACCOUNTING OFFICE; NORMAN E. LORENTZ, SENIOR VICE PRESIDENT, CHIEF TECHNOLOGY OFFICER, U.S. POSTAL SERVICE; NICHOLAS F. BARRANCA, VICE PRESIDENT, OPERATIONS PLANNING, U.S. POSTAL SERVICE, AND RICHARD D. WEIRICH, VICE PRESIDENT, INFORMATION SYSTEMS, U.S. POSTAL SERVICE

Ms. CORCORAN. Thank you. Good morning, Chairman McHugh, Chairman Horn, Chairwoman Morella, and members of the subcommittees.

I am pleased to be here today to discuss the Y2K challenge facing the Postal Service. Joining me is Richard Chambers, Deputy Assistant Inspector General for Audit.

With your permission, I would like to submit my full statement for the record.

Mr. MCHUGH. For the record, so ordered, without objection, as all of the witnesses statements will be entered in their entirety.

And, please, all of you feel free to summarize your comments and make those points you feel are most important for the moment. Thank you.

Ms. CORCORAN. Since beginning my office in 1997, we have been performing work in the Y2K area. In addition, the Postal Governors have been very concerned about the Y2K issue. They have monitored the progress through periodic briefings by management and my office.

The Postal Service Y2K issues can be examined by answering four key questions.

One, why is it critical for the Postal Service to address the Y2K issue?

Two, will the Postal Service be able to deliver mail after January 1, 2000?

Three, what is the current status of the Postal Service's Y2K effort?

And, four, what can Postal Service do to minimize the Y2K risk?

Turning to question No. 1, why is it critical for the Postal Service to address the Y2K issue? The Postal Service is an important part of the Nation's communication and commercial infrastructure. The Postal Service is heavily reliant on technology, automation, and thousands of critical, external suppliers of goods and services who also face Y2K challenges. The Postal Service uses Y2K-vulnerable equipment systems and processes to deliver 650 million pieces of mail per day, maintain 38,000 facilities, and pay over 800,000 employees. In addition, numerous private and Government agencies have included the Postal Service in their contingency plans if their electronic systems fail.

Question 2, will the Postal Service be able to deliver the mail after January 1, 2000? There are too many variables that currently exist to answer that question. The answer to this question depends, in large part, on the Postal Service—how well the Postal Service executes its Y2K plans over the coming months. The Postal Service has made progress, but much remains to be done in the remaining 10 months.

We have provided the Postal Service with five reports that outline opportunities for improvement. Generally, the Postal Service has taken action on these reports, but with so little time remaining, "beating the clock" will be challenging.

Question 3, what is the current status of Postal Service's Y2K effort? To answer this question, I would like to look briefly at eight comprehensive areas.

The first area is external suppliers. Postal Service estimates it has about 8,000 critical suppliers of goods and services for areas such as air, rail, and fuel that are needed to move the mail and maintain its facilities. The Postal Service has 661 critical national suppliers; it only knows the Y2K readiness status of 1 out of 7 of these national suppliers. The Postal Service also knows very little about the 7,000 field suppliers and their Y2K readiness. Postal operations may be disrupted if their suppliers' services are not Y2K compliant or if the Postal Service does not develop alternatives to these suppliers.

The second area is data exchanges. This is the way that the Postal Service transfers data with other Government agencies, businesses, industries, and customers. Only 6 percent of the 2,000 known critical exchanges are Y2K ready.

The third area is technology-dependent facilities. These are the controls for heating, cooling, fire suppression, and the numerous other systems that support the 38,000 facilities. Postal Service is still assessing these controls to determine what needs to be done to assure the facilities do not shut down or cause problems on January 1, 2000.

The fourth area is mail-processing equipment. These are the major automated systems for moving the mail. They consist of thousands of pieces of equipment. This area is on its way to being Y2K compliant. Our main concern is whether the Postal Service will adequately deploy and test its solutions.

The fifth and sixth areas are information systems and the information technology infrastructure. These are mainframes, PC's, and information systems that process data. A majority of these have had solutions developed; however, independent verification to assure systems' compliance and deployment of solutions to the actual infrastructure could be a challenge.

The seventh area is readiness testing. Readiness testing gives Postal Service assurance that their systems will be reliable on January 1, 2000. The Postal Service has not made a final determination as to what extent readiness testing will be performed.

The final area I would like to discuss within this third question about Postal Service's current Y2K status is their continuity plans. You can consider continuity plans to be the Postal Service's insurance plan. If failures occur in any of their equipment, systems, or processes, alternatives or ways to assure their operations are not affected must be developed, implemented, and tested for all core business processes to ensure movement of the mail, payment of its bills, protection of its revenue, and protection of the life and safety of its employees and customers.

The Postal Service plans to complete the continuity plan by July and test it by August. This is a tremendous challenge within the given timeframes. But not meeting these timeframes is not really an option for the Postal Service if they are going to be ready for January 1, 2000.

In summary, for these eight areas, the Postal Service has done much, but much remains to be done.

Question 4, what can the Postal Service do to minimize Y2K risk? There are three things that we believe the Postal Service needs to do to minimize their risk. First, the Postal Service should reevaluate its initial assessments to identify only those most critical business operation systems. Second, the Postal Service should focus its work on correcting, first, those systems, equipment, and processes that are absolutely necessary to ensure core business processes work. Third, the Postal Service must develop, implement, and test business continuity plans for core business processes.

In summary, it is critical for the Postal Service to address the Y2K issue. There are too many variables to determine what impact Y2K will have on the Postal Service's ability to deliver mail after January 1, 2000.

The Postal Service recognizes its Y2K challenge, is taking action, and has made progress. However, with 10 months remaining before year 2000, much remains to be done. The Postal Service should focus resources on the most critical core business processes and develop, implement, and test their continuity plan to minimize Y2K risk.

My office will continue to work with the Postal Service to identify challenges and to help the Postal Service minimize the Y2K risk.

The concludes my statement. Thank you for interest, and I will be pleased to answer any questions.

[The prepared statement of Ms. Corcoran follows:]

STATEMENT OF
KARLA W. CORCORAN, INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

BEFORE A JOINT HEARING OF THE
SUBCOMMITTEE ON
GOVERNMENT MANAGEMENT, INFORMATION, AND TECHNOLOGY
SUBCOMMITTEE ON THE POSTAL SERVICE
COMMITTEE ON GOVERNMENT REFORM
AND THE
SUBCOMMITTEE ON TECHNOLOGY
COMMITTEE ON SCIENCE

UNITED STATES HOUSE OF REPRESENTATIVES
FEBRUARY 23, 1999

Chairman Horn, Chairman McHugh, Chairperson Morella, and Members of the Subcommittees, I am Karla Corcoran, Inspector General of the United States Postal Service. I am the first independent Inspector General for the U.S. Postal Service, and have served in this position since January 1997. Prior to becoming Inspector General, I served as an executive in four other audit or Inspector General organizations, most recently with the Air Force Audit Agency. I am pleased to appear before you to discuss the Year 2000 (Y2K) challenges facing the Postal Service. Richard Chambers, Deputy Assistant Inspector General for Audit, is joining me today.

As you know, the Y2K problem results from the way in which computer systems store and process dates. In many systems, the year 2000 will be indistinguishable from the year 1900, thereby causing potential system failures. The Postal Service is heavily dependent on automation to carry out its mission. In 1998, the Postal Service used automation and information systems to deliver 198 billion pieces of mail, maintain its nationwide network of over 38,000 post offices and facilities, and pay its more than 775,000 career employees. This dependency on automated systems makes the Postal Service highly susceptible to the Y2K problem. As a key element in our nation's communication and commerce infrastructure, its preparedness may be crucial to the nation's Y2K readiness. Both the private sector and government may rely on the Postal Service as a contingency if their systems fail on January 1, 2000.

While the Postal Service has made progress in pursuing solutions to its Y2K problems, it still faces significant challenges in the ten months that remain. Today, I will highlight:

- The Postal Service's efforts and accomplishments to date to achieve Y2K readiness;
- The results of our Y2K reviews;
- The current status of the Postal Service's "Y2K Initiative"; and
- Actions we believe the Postal Service should take to minimize risks.

Attached to this testimony are copies of the four Y2K audit reports issued by our office.

I. USPS Y2K EFFORTS AND ACCOMPLISHMENTS

In 1993, the Postal Service's Vice President for Information Systems provided guidance for solving the Y2K problem within the Postal Service. Initially, only one Postal headquarters organization, Information Systems, was committed to, and engaged in, a solution even though it was a Postal-wide problem. In 1995, the Postal Service established a two-person Y2K program office. In 1997, the Postal Service expanded the program office to 12 people and selected an Executive Program Director, who reported to the Vice President of Information Systems, to lead, manage, and report on the Y2K Initiative. During this time, the Postal Service recognized the scope and complexity of the Y2K challenge, and hired contractors to assist in managing and correcting the problem. In January 1998, the Y2K program was expanded to include non-information systems areas such as external suppliers, mail processing equipment, and facilities.

In January 1999, the Postal Service announced the "Year 2000 Executive Council" made up of the Deputy Postmaster General and other senior Postal officials. The purpose of the Executive Council is to "ensure critical active participation of the key business areas" in the Y2K effort. As part of this effort, the Postal Service redesignated organizational responsibilities and authorities regarding Y2K. The Senior Vice President, Chief Technology Officer is now responsible for reviewing and correcting hardware and software that require Y2K modification, and the Chief Operating Officer and Executive Vice President is responsible for developing business continuity plans in the event of Y2K-related systems failures.

Over the past year and a half, among other things, the Postal Service has:

- Developed Business Impact Assessments for many areas;
- Reviewed and corrected some non-Y2K compliant critical systems;
- Created and implemented an independent process to ensure that systems are reviewed and corrected;
- Developed Y2K solutions for mail processing equipment and information technology infrastructure components; and
- Tested mail processing equipment at three facilities.

To date, the Postal Service estimates it has spent about $200 million to address the Y2K challenge. In its most recent report to the Office of Management and Budget, the Postal Service estimates it will spend a total of $607 million to resolve the Y2K challenge.

II. YEAR 2000 AUDIT RESULTS TO DATE

From our establishment in early 1997, we recognized the significance of the Y2K problem, and during our short existence, the Postal Service's Y2K Initiative has been one of our highest priorities. Prior to January 1997, when I was sworn in as the first independent Inspector General for the Postal Service, there had been no audit coverage of the Y2K Initiative within the Postal Service.

By July 1997, we had hired specially trained information systems auditors and had started to look at the Postal Service's Y2K readiness. In August 1997, the Deputy Postmaster General requested our office to independently monitor the Postal Service's Y2K Initiative. Over the past year, we have issued Y2K reports to Postal management approximately every three months, assessing their progress and outlining our concerns. Generally, Postal management has agreed with our Y2K recommendations and has taken steps to implement corrective actions.

When we began auditing the Y2K Initiative in 1997, we found that Postal management had not fully identified the extent of the Y2K challenge and, in our judgment, was behind schedule in correcting the problem. Subsequent audit coverage concentrated on the adequacy of Y2K reporting and the Postal Service's overall efforts to ensure compliance.

Our first report, issued in March 1998, addressed the extent to which the Postal Service was aware of and had assessed the Y2K challenge. We found the Postal Service had been slow to recognize Y2K as a Postal-wide issue. We also noted that the Postal Service had neither comprehensive Postal-wide planning nor sufficient senior management involvement to allow for the most effective approach to solving the problem. During our audit, Postal management recognized the need for stronger program management and planning, and hired experienced Y2K consultants. The Deputy Postmaster General agreed with our assessment and noted that the Y2K Initiative is a very critical project for the Postal Service and will require continuous senior management involvement.

Our second report, issued in July 1998, assessed the Postal Service's preliminary progress in reviewing, correcting, and testing information systems and information technology infrastructure hardware and software. We found that:

- Mainframe operating systems were not entirely Y2K compliant;
- Critical information systems were not correctly identified, prioritized, or tested for Y2K compliance; and
- Y2K status reporting was not always accurate.

We offered recommendations to enhance project management and to ensure that systems made Y2K compliant were thoroughly tested and documented.

In September 1998, we issued our third audit report, focusing on the process that provides independent verification that Postal Service systems have been reviewed and corrected, and are Y2K compliant. We noted that management had implemented quality control, but we questioned whether the Postal Service should verify 100 percent of the programming code for all the critical systems. To ensure that all these systems would be verified by the year 2000, we recommended the Postal Service use statistical sampling techniques to streamline the independent verification process. The Postal Service agreed with our report findings and recommendations and initiated corrective actions before the audit was complete.

We issued our most recent Y2K report this month. This report addressed the quality and reliability of Y2K information reported by the Postal Service. We found that briefings to senior management and Y2K reports designed for internal and external use were not always complete, consistent, or clear. We also found that the briefings to senior management did not include a standard report on the overall status of Y2K progress and were not provided at regularly scheduled intervals. As a result, senior managers did not always have the information they needed to monitor Y2K progress. Because senior managers did not have this information, they lost time-critical opportunities to make important resource and budget decisions. We recommended that the Postal Service adopt a status report that is comprehensive yet simple to read and shows, at a glance, the overall status of the Y2K Initiative. The Postal Service concurred with all the findings and has agreed to take action on the recommendations.

We also issued an advisory letter to Postal management in 1998 concerning unlimited indemnification language proposed by a Y2K contractor. It was our view that the proposed contract language would impair the Postal Service's ability to hold the contractor accountable for the deliverable services required by the contract. Postal management reacted quickly to the advisory and modified the contract.

We are also coordinating with the General Accounting Office to assess and monitor the Postal Service's Y2K progress.

Ongoing and Future Y2K Audit Coverage

Before moving to the Postal Service's current Y2K status, I would like to give you an overview of our ongoing and planned Y2K work. In the past few months, we have significantly increased the extent of our coverage, and currently have several reviews underway involving almost 25 percent of our audit and evaluator staff. Four specific areas we are or will be looking at are:

1. *Overall Status of the Y2K Initiative:* The issues outlined in this testimony will be expanded into a report discussing the current status of the Postal Service's Y2K Initiative from an operational standpoint.

2. *Executing the Y2K Budget:* At the request of Postal officials, we initiated a review to determine the reasonableness of the Postal Service's expenditures on Y2K contractor support. The Postal Service has spent a substantial portion of the total $200 million Y2K expenditures for contractor support on this initiative. As of January 31, 1999, over 1,300 contractor employees were working on the Postal Service's Y2K Initiative. Our review is ongoing, and we have identified some preliminary issues for management such as contractor oversight, security clearances for contract employees, and the skill level of contractor employees. We plan to

complete our review of the Postal Service's Y2K expenditures by the end of the month and will issue a draft report to Postal management shortly thereafter.

3. Y2K Readiness: We plan to provide continuous audit coverage and immediate feedback to management on the status of the Postal Service's Y2K Initiative. We plan to publish formal reports at least quarterly. As part of this work, we also plan to review Y2K issues such as supplier readiness and data exchanges.

4. Review of Continuity and Contingency Planning: We plan a comprehensive review of the development, implementation, and testing of the Postal Service's Y2K continuity and contingency plans.

To aid the Postal Service in meeting its Y2K goals, this work will be continuous and extensive for the remainder of the year. We intend to be flexible in terms of our plan.

III. CURRENT STATUS OF THE POSTAL SERVICE'S Y2K INITIATIVE

Now I would like to discuss the current status of the Postal Service's Y2K Initiative. Postal management is keenly aware of the need to achieve Y2K readiness and ensure that critical business processes will continue to operate. With the year 2000 less than a year away, much work remains. As recently as last November, the Postal Service had no comprehensive report that effectively conveyed to senior management the status of the Postal Service's Y2K Initiative. Therefore, in order to highlight the issues requiring attention within the Y2K area, we developed a matrix[1] dealing with Y2K elements within three major categories:

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[1] The numbers I am using today represent data obtained through interviews and OIG surveys of Postal managers during the last half of January 1999. Some of these numbers may not match numbers provided by the Postal Service because their numbers are as of January 31, 1999, and these numbers are constantly changing. As part of our ongoing review of the Y2K Initiative, we will be regularly reviewing these numbers and updating them.

- Critical Core Business Infrastructure;
- Information Systems Area; and
- Business Continuity and Contingency Planning.

Before we discuss each of these areas, I would like to outline the process that the Postal Service is using to achieve Y2K readiness. The Postal Service is using a multi-phase process to achieve Y2K compliance. The process involves assessing the systems for compliance, reviewing and correcting non-compliant systems, and testing and implementing those solutions or workarounds Postal-wide.

Critical Core Business Infrastructure

Without its critical external suppliers, mail processing equipment, or technology-dependent facilities, movement of the mail would be adversely impacted. While the Postal Service is reporting significant progress in developing Y2K solutions for mail processing equipment, it is behind schedule in assessing the readiness of external suppliers and area facilities. I would like to briefly discuss each of these areas:

External Suppliers: The Postal Service relies extensively on external suppliers that are critical to moving the mail, such as airlines, railroads, and the trucking industry. Obviously, these suppliers are also susceptible to the Y2K problem. Therefore, it is important that the Postal Service become aware of the Y2K status of suppliers to plan and minimize potential disruption in services. Postal officials started to address the supplier issue in June 1998 and, to date, have identified almost 8,000 critical suppliers. As of January 1999, the Postal Service knew the Y2K status of 349 of these 8,000 suppliers. These 8,000 suppliers can be categorized into two groups: headquarters and field.

> For headquarters' suppliers, in January 1999, the Postal Service had identified 661 critical suppliers and inquired as to their Y2K readiness. Of these, 312 – nearly half – did not respond to

> inquiries, so the Postal Service did not know their Y2K status. Of the 349 that replied, the Postal Service determined that 254 are at high risk of not being Y2K ready and 95 suppliers will be ready. Generally, the Postal Service has not developed contingency plans to address how it will move the mail if these external suppliers are not ready for the year 2000.
>
> For field suppliers, the Postal Service also identified more than 7,200 critical suppliers that still needed to be assessed for Y2K readiness. Because so much work remains to be done in assessing the readiness of suppliers, the Postal Service faces a significant challenge in developing contingency plans for those critical suppliers that will not be ready.

Mail Processing Equipment: The Postal Service relies extensively on mail processing equipment to sort and process millions of pieces of mail daily. The Postal Service has identified 43 types of equipment that are critical to movement of the mail. These include nationally-managed equipment, such as delivery bar code sorters, advanced facer cancellers, flat sorting machines, and large parcel sorting systems. The 43 types of equipment represent thousands of pieces throughout the country. The Postal Service has reported that Y2K solutions have been developed, or are already in place, for 39 of the 43 types of equipment. The best assurance that systems will work in the year 2000 is to test them in advance. However, Postal management initially elected to test mail processing equipment at only 3 out of more than 350 sites.

The remaining 4 of the 43 types represent less than a thousand pieces of equipment. According to Postal management, these four types are in the process of being assessed, reviewed, and corrected. The Postal Service has projected that all 43 systems' solutions will be in place by August 1999.

Technology-dependent Facilities: The Postal Service operates more than 38,000 facilities nationwide. Many of these facilities are dependent on technology susceptible to Y2K problems, such as fire suppression equipment, heating and cooling systems, and building access controls. The Postal Service considers 700 of these facilities "high risk" because of the high volume of mail. These facilities rely on thousands of pieces of critical Y2K-susceptible equipment.

As of January 1999, the Postal Service did not know the Y2K status of critical equipment in its facilities nationwide. Officials tried to determine the status of equipment starting in June 1998, but had limited success. In January 1999, the Postal Service determined that the most appropriate method for assessing equipment was to conduct a survey of the equipment within 200 "high risk" facilities. The survey is expected to be completed by June 1999.

In the six months remaining after completion of the survey, officials will need to:

- Project the results of this survey nationwide;
- Determine the business impact of non-Y2K compliant equipment;
- Develop, deploy, and test solutions for critical non-Y2K compliant equipment; and
- Develop workarounds and contingency plans.

Information Systems Area

Now I would like to turn to the traditional information systems area, which includes computers, communications facilities, hardware and software, and data designed to support the Postal Service's business processes. While the Postal Service has made progress in reviewing and correcting Postal-wide information systems, data exchanges, information technology infrastructure, and readiness testing, much remains to be done. If critical information systems fail, the Postal Service's core business processes – such as movement of the mail, collection of revenue, payment of bills, and protection of the life and safety of employees and customers -- may be impaired.

We would like to describe what we have learned about these areas to date:

Information Systems: As of January 1999, the Postal Service had identified 152 critical information systems. Critical systems are those crucial to the core business activities of the Postal Service. Examples of these systems include Payroll, National Change of Address, and Stamp Services.

As of January 1999, Postal managers reported that 127 of the 152 systems were reviewed, corrected, and tested at the system level. These systems still need to be certified and independently verified as Y2K compliant. Some systems will also need to undergo readiness testing. The Postal Service's initial target date for reviewing and correcting systems was September 1998. The current completion date is projected for June 1999, nine months after the original projection, which affects other information systems target dates. According to the Postal Service, as of January 31, 1999, 41 of the 127 reviewed and corrected critical systems had been independently verified as Y2K compliant.

Contingency plans identify alternative actions in case a critical system fails, and protect the continuity of business processes. Originally, the Postal Service intended to prepare contingency plans for all 152 critical systems. Currently, the Postal Service's intentions are to develop contingency plans for key business processes. No contingency plans had been completed as of the end of January 1999.

Data Exchanges: The Postal Service exchanges a significant amount of data internally and with external organizations, such as financial institutions, customers, transportation suppliers, meter manufacturers, and the U.S. Treasury. These data exchanges need to be assessed and certified as compliant if the Postal Service's Y2K effort is to succeed. Even if the Postal Service's critical systems are Y2K compliant, it is possible that exchange partners' systems may not be Y2K ready. As a result, the Postal Service's critical systems may be affected. For example, 5 postage meter manufacturers generate about $21 billion in annual Postal Service revenue. Revenues from these manufacturers are transferred to the Postal Service's systems via data exchanges. The Postal Service is in the process of ensuring these very important data exchanges are Y2K ready and tested.

As of January 1999, the Postal Service had not completed its inventory of internal and external data exchanges. The Postal Service has assessed about 4,300 out of approximately 5,700 data exchanges. About 2,000 of the 4,300 data exchanges assessed have been identified as critical. As of now, 123 of the 2,000 have been reported as Y2K ready.

In the ten months that remain, the Postal Service must:

- Identify whether the remaining 1,400 data exchanges are external or internal;
- Determine if the 1,400 data exchanges are critical;
- Assess the Y2K readiness of all critical data exchanges; and
- Develop workarounds and contingency plans for those critical data exchanges that are not Y2K ready.

Information Technology Infrastructure: The Postal Service depends on mainframe systems, midrange computers, network servers, personal computers, and telecommunications equipment. The Postal Service has been working to make this infrastructure Y2K compliant since 1996. As of January 1999, officials estimated that the Postal Service had more than 134,000 actual pieces of hardware, including about 120,000 personal computers and about 14,000 servers.

To manage the inventory, the Postal Service has categorized the hardware and software into 2,000 unique types. As of January 1999, the Postal Service reported that solutions had been developed for 1,600 of the 2,000 types of hardware and software. Deploying the solutions will be a challenge because the Postal Service does not know which specific personal computers and servers are not Y2K compliant. Postal Service officials also indicate they are currently working on solutions and workarounds for the remaining 400 types of hardware and software. Contingency plans and independent verification are in process for the information technology area, but have not been completed.

Readiness Testing: The most reliable way to ensure that the Postal Service's complex information systems and core business processes are Y2K ready is to test them before the year 2000. Officials recently elected to conduct readiness tests on information systems that drive core business processes in areas such as finance, marketing, and mail operations. Readiness testing is a high-level integrated means of ensuring that information systems, data exchanges, and the various technology elements will work together to process information in the year 2000. To date, they have not identified how many of the 152 systems drive core business processes other than in the finance area. The Postal Service has not made a final determination on the extent of readiness testing.

Although the Postal Service plans to complete all readiness testing for systems that drive core business processes by July 1999, a great deal of work remains, such as:

- Identifying information systems that drive non-financial key core business processes;
- Obtaining resources needed to conduct the tests;
- Developing readiness testing plans; and
- Correcting any portion of a system that fails a readiness test or developing a workaround.

Business Continuity and Contingency Planning

The last area we will discuss is business continuity and contingency planning. We believe that the Postal Service must act quickly to reduce the risk and potential negative effects of Y2K failures. One weak link anywhere in the chain of critical dependencies – including external suppliers, business partners, and the public infrastructure – could cause major disruptions in Postal Service business operations nationwide. As a result, it is imperative that continuity and contingency plans be developed and tested for all core business processes.

Ten months remain to develop, implement, and test a comprehensive Y2K business continuity plan. Postal management agreed with our March 1998 recommendation to develop, implement, and test these plans for the most critical systems. Because sufficient progress had not been made, we reiterated our concerns in November 1998, and provided management with additional information on such planning. In January 1999, the Postal Service announced the placement of the responsibility for developing the continuity plan under the Chief Operating Officer and Executive Vice President. Since then, the Postal Service has agreed on a methodology to develop corporate business continuity and contingency plans, has started to acquire contractor support, and has begun the process of systematically documenting in detail its core business processes that will be addressed in the plans. The Postal Service plans to complete its business continuity and contingency plans by July 1999, and test them by August 1999.

In the remaining ten months, Postal officials must:

- Document the Postal Service's core business processes;
- Determine system component dependencies;
- Assess risk of failure for each component, including the estimated probability and effect;
- Develop business process contingency plans and develop "trigger" strategies;

- Establish recovery teams for each critical process;
- Test business process contingency plans; and
- Update disaster recovery plans and procedures.

The Postal Service is faced with a formidable challenge in completing all of these tasks, and needs to continue to vigorously pursue this area.

IV. ACTIONS WE BELIEVE THE POSTAL SERVICE SHOULD TAKE TO MINIMIZE RISKS

It is critical that the Postal Service's core business processes work on January 1, 2000. Ideally, all of the Postal Service's Y2K problems would be fixed, and core business processes would transition seamlessly into the year 2000. In reality, there may be more to do than time will permit.

The Postal Service established the total universe of Y2K-affected structures and systems and made an initial determination of its most Y2K-vulnerable structures and systems that would affect carrying out its mission. In the remaining ten months, Postal officials may not be able to obtain new and/or reallocate current resources necessary to correct, deploy, and test the vast numbers of systems and structures identified in the initial assessment.

Therefore, we believe the Postal Service should immediately reevaluate the initial assessment and shift priority to issues that are absolutely necessary to ensure that core business processes work in the year 2000. The core business processes are those that move the mail, pay employees and vendors, protect revenue, and protect the safety of employees and customers. The remaining systems and structures must still be corrected, but not until after the core business processes have been safeguarded against Y2K failures.

Even if core business processes are secured, and the remaining systems and structures are reviewed and corrected in time for the year 2000, it is still critical that the Postal Service develop and test business continuity and contingency plans. Such plans will reduce the consequences of Y2K problems that could impair the Postal Service's core business processes.

In summary, the Postal Service recognizes the Y2K challenge, is taking action, and has made some progress in resolving the Y2K issues. However, with ten months remaining before the year 2000, much work remains. In the coming months, the OIG will continue to work closely with Postal management to identify Y2K challenges and minimize the risk of Y2K-related failures. My office will continue to contribute, in every way we can, to ensure a smooth transition into the next century.

This concludes my statement. Thank you for the opportunity to be here today. I would be pleased to answer any questions.

UNITED STATES POSTAL SERVICE
OFFICE OF INSPECTOR GENERAL

YEAR 2000 INITIATIVE
PROGRAM MANAGEMENT OFFICE REPORTING

February 18, 1999

Audit Report Number IS-AR-99-001

This is a Year 2000 Readiness Disclosure as defined in PL 105-271,
Year 2000 Information and Readiness Disclosure Act

KARLA W. CORCORAN
INSPECTOR GENERAL

February 18, 1999

MICHAEL S. COUGHLIN
DEPUTY POSTMASTER GENERAL

SUBJECT: Year 2000 Initiative: Program Management Office Reporting
(IS-AR-99-001)

This report presents the results of our review of the United States Postal Service's Year 2000 (Y2K) Initiative. This report is the fourth in a series of audit reports dealing with Y2K issues in the Postal Service. During this review, we noted the quality of Y2K reporting needed improvement and that senior management might be in a position to make more informed decisions if they were given regularly scheduled reports that disclosed the status of all Y2K activities.

We have reviewed your response to our draft audit report. The corrective actions taken or planned are responsive to the issues we raised. We plan to monitor management's progress in implementing these recommendations during our ongoing review of the Y2K Initiative.

The cooperation and courtesies provided by your staff during the audit were appreciated.

Karla W. Corcoran

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USPS YEAR 2000 INITIATIVE:
Program Management Office Reporting

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**This is a Year 2000 Readiness Disclosure as defined in PL-105-271,
Year 2000 Information and Readiness Disclosure Act.**

EXECUTIVE SUMMARY

Results In Brief

The year 2000 (Y2K) problem results from the way in which computer systems store and process dates. In many systems, the year 2000 will be indistinguishable from 1900, thereby causing potential system failures. The date change has the potential to cripple an organization's ability to execute its critical business functions. It might impact such business transactions as payroll and pension calculations, budgeting, and electronic data transfer. In addition, it may affect areas not thought to be Y2K-vulnerable, such as transportation, building maintenance, heating, ventilation and air conditioning. This is the fourth audit report in a series of Office of Inspector General (OIG) reports regarding the United States Postal Service (USPS) Y2K Initiative. (See the Prior Audit Coverage section on page 4 for details on these reports and an advisory letter addressing the Y2K initiative.)

The USPS Y2K Initiative Program Management Office has made progress in enhancing the accuracy and reliability of its Y2K reporting. However, improvements are needed in the way the Program Management Office conveys the status of its activities to senior management. Specifically, we found that briefings to senior management and Y2K reports designed for internal and external use were not always complete, consistent, or clear. We also found that Y2K briefings to senior management did not include a standard report on the overall status of Y2K progress and were not provided at regularly scheduled intervals. As a result, USPS senior managers were not always able to use the information to monitor Y2K progress and make timely and informed decisions.

Recommendations

We recommend the Deputy Postmaster General direct the Vice President, Information Systems to:

1. Develop a "standardized report" to be included in briefings that discloses all Year 2000 areas and provide them on a frequent (e.g., biweekly) basis to senior management.

2. Ensure that the "standardized report" includes, at a minimum, the following: (1) all major Year 2000 areas, (2) original baseline figures, any changes to the baseline and reason for change, and target dates, and (3) definitions of terms, as appropriate. Also, details should be provided on baselines, such as mail processing equipment, information technology infrastructure, etc., to show the magnitude of the effort to be undertaken.

3. Consolidate and link USPS Year 2000 databases to provide a complete, centralized repository of Year 2000 project information.

4. Re-evaluate priorities given the non-information systems and corporate Year 2000 issue areas and shift or identify additional resources to address them as soon as possible.

Management Comments

The Deputy Postmaster General (DPMG) concurred with all findings and agreed in principle with three of the four recommendations. The DPMG indicated full agreement with the fourth recommendation. In the preamble to his response, the DPMG couldn't overemphasize the importance of Y2K reporting and that the Postal Service has been working to develop briefings and reports which provide both a current status and a "look forward." Further, he indicated that they do expect to have some difficulty portraying all aspects of this large, complex program in a concise, readily comprehensible form. The action items for each recommendation is briefly presented below. The full text of the DPMG's response is included in this report as an appendix.

Recommendation 1: *Agree.* Action on this recommendation *"for a "standardized report is complete for remediation."* Decision briefings (to management) should not be standardized, except to the extent that they provide a short overview and then focus on the key issue(s). Information briefings (to general audiences) may be standardized as recommended. *"It may be more effective to provide a "standardized report" at the time of briefings and highlight specific areas of attention targeted to the specific audience."*

Recommendation 2: *Agree.* The DPMG stated that action on the part of this recommendation pertaining to reporting is complete. ". . . reports and baseline data are tailored to focus on activities unique to a Portfolio or on a particular phase of activity. . . Report formats have been and may continue to be changed to better highlight issues of focus decision-making activity."

Recommendation 3: *Agree.* This remains an open item. The target date for resolution is the end of March 1999.

Recommendation 4: *Agree.* According to the DPMG, this is a continuous activity (no end date). Priorities and resources are continuously reevaluated, reassigned, and/or acquired. Today, business leaders, working with Portfolio Managers, are constantly adjusting resources so as to achieve the objectives of the Year 2000 objective.

Inspector General Comments

The Office of Inspector General appreciates the DPMG's commitment to meeting the Y2K challenge within the Postal Service and his interest in providing accurate and consistent data in briefings to internal and external audiences.

Recommendation 1: While Postal management agrees with the OIG recommendation, their response is unclear as to how they plan to develop and implement "standardized reports." We discussed this response with Postal officials to obtain clarification, and they told us that they understand and are in full agreement with the concept we recommended, but that they may have a different idea as how to portray the information.

Their last statement in this response indicates that "*It may be more effective to provide a "standardized report" at the time of briefings and highlight specific areas of attention targeted to the specific audience.*" If management implements such an approach, and it fully discloses the status of all Y2K activities, we would consider it responsive to our recommendation. We will evaluate management's proposed action in our ongoing review of the Y2K initiative and report on the Program Management Office's success in developing the "standardized report" envisioned in this recommendation.

Recommendation 2: While Postal management agrees with this recommendation, their response is not consistent with the reporting concept agreed to in Recommendation 1 above. This recommendation expands on the concept report recommended above and is structured to require minimum data be provided to senior management as it pertains to the overall Y2K effort.

If management agrees with our reporting concept as they indicate in their response to our first recommendation, and if the "standardized report" contains the minimum information we recommended, we will consider such actions responsive to our recommendation. As noted in our comments to management's response to our first recommendation, we will evaluate both the form and content of the "standardized report" in our ongoing review of the Y2K initiative and report out as appropriate.

Recommendation 3: Postal management agrees with this recommendation but their response is somewhat ambiguous. While we recognize the obstacles that management has to deal with, we strongly encourage the Program Management Office to develop a single, consolidated database. It is our view that this can be an invaluable tool in the Postal Service's effort to monitor and deal with the Y2K problem. We consider management's actions responsive to this recommendation, however, we will continue to monitor their actions in this regard in our ongoing Y2K review.

Recommendation 4: We note management's agreement with this recommendation. However, we cannot overemphasize the urgency to shift or identify additional resources to non-information systems and corporate-wide issue areas. Given all that needs to be accomplished before January 1, 2000, Postal management may need to re-evaluate its priorities and not wait until "activities . . . wind down." We therefore believe Postal management should consider running parallel efforts to complete its business continuity and contingency planning and simulation testing. Even though we believe more needs to be done, we will consider this reply responsive to the recommendation and will monitor management's actions in this regard during our ongoing Y2K review.

INTRODUCTION

The Y2K problem results from the way dates are recorded and calculated in computer systems. In the past, to conserve electronic data storage, systems typically used two digits to represent the year, such as '98' representing 1998. With this two-digit date format, however, the year 2000 is indistinguishable from 1900, 2001 from 1901 and so on. As a result of this ambiguity, systems that use dates to perform calculations may fail after 1999.

The USPS Y2K Initiative covers information systems and platforms as well as other non-information systems issues. The information systems portion of the Y2K initiative spans over 500 applications systems and USPS information technology infrastructure including mainframe hardware and software, telecommunications, servers, personal computers, and internal/external interfaces, etc. The Y2K initiative also includes external supplier activities as well as embedded software found in mail processing equipment, facilities, vehicles, etc. In addition, business continuity planning, information systems contingency planning, and readiness testing are critical processes which must be performed to ensure that USPS is ready for the year 2000.

The Vice President Information Systems is accountable to the USPS Management Committee on all Y2K activities. The Vice President Information Systems established a Program Management Office responsible for leading, managing, and reporting on the Y2K initiative. The Program Management Office periodically provides USPS senior management briefings on the status of Y2K and submits reports to the Office of Management and Budget on a quarterly basis. USPS managers are ultimately accountable and responsible for completing key Y2K readiness activities on schedule.

Objective, Scope, And Methodology

The objective of this phase of our continuing Y2K audit coverage was to assess the quality of the Program Management Office's reporting of Y2K progress to USPS senior management. Our audit work was accomplished during the period September to December 1998 in accordance with generally accepted government audit standards, and included such tests of internal controls as we considered necessary under the circumstances. The figures reported herein represents data gathered as of December 7, 1998, and may not reflect information reported after that date. Our scope included interviews with appropriate officials and reviews of Program Management Office written reports and briefings provided to senior management and external organizations since May 1998.

Prior Audit Coverage

This is the fourth in a series of OIG audit reports regarding the Y2K initiative. Our first report was "Year 2000 Initiative" (Report No. IS-AR-98-001, dated

March 31, 1998). During this review, we examined the awareness and assessment phases of the USPS Y2K initiative and made recommendations for improvement in several areas including assigning accountability to responsible managers. USPS management fully concurred with our findings and recommendations.

Our second report, entitled "Year 2000 Initiative: Status of the Renovation, Validation, and Implementation Phases" (Report No. IS-AR-98-002, dated July 21, 1998), involved a preliminary assessment of the renovation, validation, and implementation phases of the USPS Year 2000 initiative. It contained recommendations for improvement in several areas including accurately reporting the compliance status of systems applications. USPS management fully concurred with our findings and recommendations.

Our third report, entitled "Year 2000 Initiative: Post Implementation Verification" (Report No. IS-AR-98-003, dated September 29, 1998), involved an assessment of the efficiency and effectiveness of the process implemented as an independent check on USPS remediation efforts. This report recommended USPS modify its system certification and post implementation verification procedures to improve the quality of systems sent to verification as well as the process itself. USPS management fully concurred with our findings and recommendations.

We also issued a letter report, entitled "Y2K Contract Indemnification Advisory Letter" (Report No. CA-LA-98001, dated July 7, 1998). That letter addressed negotiations between the Postal Service and a consulting firm regarding the Y2K program management contract's indemnification clause. That letter contained suggestions to USPS management regarding the indemnification issue.

No prior audits were conducted by the USPS Inspection Service or the General Accounting Office regarding specific USPS Y2K initiatives.

Quality and Reliability of Program Management Office Reporting

Results

In examining Y2K reports, we have seen substantial improvements in gathering and reporting information the Program Management Office receives from the field locations. These reports, referred to as Windows Reports, contain consistent information regarding Y2K operations and are used by the Program Management Office to track Year 2000 readiness.

Year 2000 Reporting

Despite the progress noted above, improvements are needed in the way the Program Management Office conveys the status of its activities to senior management. Specifically, we found that briefings to senior management and Y2K reports designed for internal and external use were not always complete, consistent, or clear. We also found that Y2K briefings to senior management did not include a standard report on the overall status of Y2K progress and were not provided at regularly scheduled intervals.

As a result, USPS senior managers were not always able to use the information to monitor Y2K progress and make timely and informed decisions. In fact, we found cases where either the status of major Y2K areas was not provided (even if no progress was made) or progress could have been misconstrued. For instance, all major areas under the Y2K initiative (such as contingency planning) were not conveyed to senior management on a regular basis. As a result, senior managers have lost time-critical opportunities to shift priorities and make important resource and budget decisions.

Reporting problems resulted because (1) standards for conveying the status of Y2K activities to senior management were not established at the onset of the project, (2) comprehensive Y2K inventories were not developed timely, and (3) information was gathered on a piecemeal basis because various Y2K databases were not consolidated or interfaced.

The following chart depicts inconsistencies in selected briefings and reports presented to USPS senior managers, OIG, and external organizations.

Inconsistencies in Y2K Reporting

ISSUES	Internal Briefing to Senior Mgmt 10/6/98	Internal Briefing to Senior Mgmt 9/29/98	Briefing Presented to External Organization 9/11/98	Internal Briefing to Senior Mgmt 8/31/98	Internal Briefing to Senior Mgmt* 10/30/98	Report to External Organization
Major Y2K Areas Disclosed	Partial	No	Partial	Partial	Partial	Partial
Baseline Reported	Partial	No	Partial	Partial	Partial	Partial
Terms Defined	Partial	No	Partial	Partial	No	Partial
Ambiguous Data Presentation	Yes	N/A	Yes	Yes	Yes	Yes
Frequency Of Y2K Briefing/Reports	Request	Request	Request	Request	Request	Quarterly
Standard Briefing/ Report Format	No	No	No	No	No	Yes

Chart 1

*A Year-End report was included with this particular briefing as an attachment. While this 30-40 page report did contain additional details regarding Y2K activity, it was prepared at year-end (one-time basis), was directed toward middle management, and was not a regular part of senior management committee briefing material.

The issues identified in Chart 1 are explained in more detail below.

Major Y2K Areas Disclosed:

To effectively monitor overall Y2K progress, all major areas must be tracked. However, our review disclosed that the following major areas were not always addressed in USPS Y2K briefings and reports:

- information technology infrastructure;
- business continuity planning;
- information systems contingency planning;
- readiness testing; and
- non-information system areas

Without the status of all Y2K activities (even if little or no progress has been attained), USPS senior managers did not have all of the information necessary to make timely and informed decisions.

Discussions with Program Management Office officials indicated they never intended to brief all areas because they always planned to address them at a later date. They also indicated that they wanted to give senior management information to make decisions on information systems activities at the time, and not to overload them with information the Program Management Office had not yet started. In our opinion, these statements support our conclusions that senior management did not always have all the information necessary nor the opportunity to timely initiate other Y2K activities.

Baseline Reported:

Decision makers need a point of reference (quantitative baseline[1]) in order to assess the progress of the Y2K initiative. However, our review disclosed that baselines were not always provided for the following areas in USPS Y2K briefings and reports:

- information technology infrastructure;
- internal and external interfaces;
- mail processing equipment;
- non-critical information systems;
- business continuity and contingency planning; and
- readiness testing

Without established baselines, USPS senior managers were not always aware of the extent of Y2K progress. As a result, they were not in a position to make informed decisions or allocate resources to areas where progress lagged.

Data Presentation:

In order to make informed Y2K decisions, senior managers must have information that is reliable. However, USPS senior managers could not always rely on information presented because it did not include standard definitions. In addition, data contained in briefings and reports did not always reflect the magnitude of work to be done. The following examples illustrates the problem:

- Mail processing equipment is being reported as comprising '43' severe and mission critical systems. However, the '43' systems actually represent hundreds of pieces of equipment throughout the country. A similar problem exists with the "information technology infrastructure" category. Information technology infrastructure is being reported as comprising 2,010 severe and mission critical systems. In fact, the '2,010' represents unique types of infrastructure components comprising at least 120,000 PCs and 30,000 servers. While '2,010' is an accurate statistic, decision-makers cannot appreciate the magnitude of the challenge without information on the volume of hardware and software it represents.

---

[1] Baseline – the number of items in inventory for each particular Y2K area; the beginning number to which remediation must be applied.

- A September 1998 Program Management Office briefing reflected 155 severe and mission critical systems of which 107 were reported as remediated. While '107' reflects a degree of progress, a more accurate barometer would be the number of systems independently verified as Y2K compliant – shown in the briefing as 6 systems verified as compliant. At the October 1998 senior management meeting, the Program Management Office presented these statistics (i.e., 153, 106, 6 at that time) in a bar chart format, illustrated below, clearly reflecting the gap between the 153 total systems and 6 systems verified as compliant. On the basis of the October presentation, we were told that immediate actions were taken to start "closing this gap."

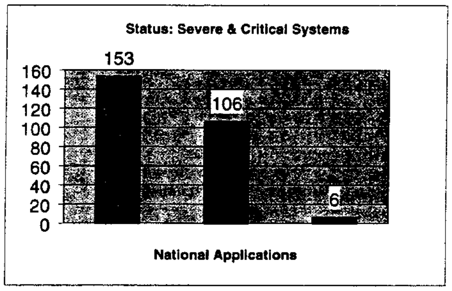


Chart 2 Legend: 153 = total severe and critical systems
106 = severe and critical systems reported as remediated
6 = severe and critical systems through post implementation verification

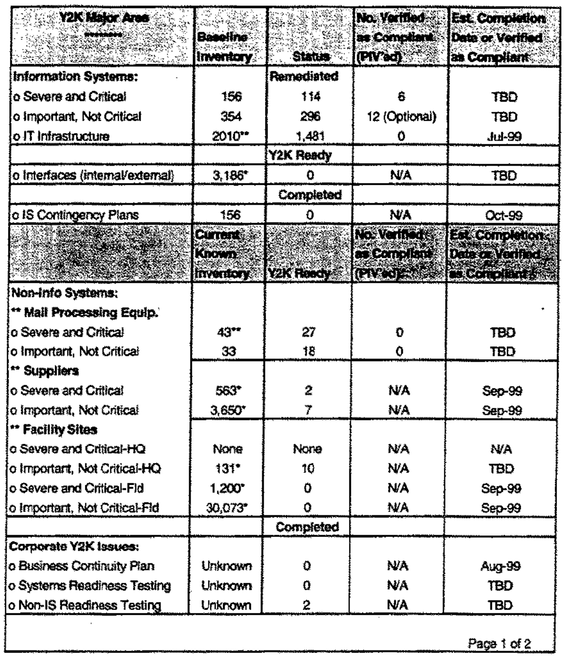
Frequency of Y2K Briefings/Reports:

In order to make informed decisions, senior managers require timely, up-to-date information, provided at regular intervals. However, Y2K briefings and reports to senior USPS managers are generally provided 'upon request.' The Program Management Office has not established a set schedule (such as biweekly) when Y2K information will be made available to senior management. In our view, the Y2K initiative is significant enough to warrant full-disclosure reporting on a regular basis.

Standard Briefing/Report Format:

Briefings and reports to senior management should follow a standard format and report progress in a consistent manner. Appropriate language should be included to explain unusual items (e.g., mail processing equipment, information technology infrastructure) or deviations from the plan. Our review of selected briefings and reports, as illustrated in Chart 1, disclosed none of the above. An effective management report, utilizing a chart similar to Chart 3 presented below, contains information that is comprehensive yet simple to read and shows, at a glance, the status of Y2K.

Sample Year 2000 Status Report



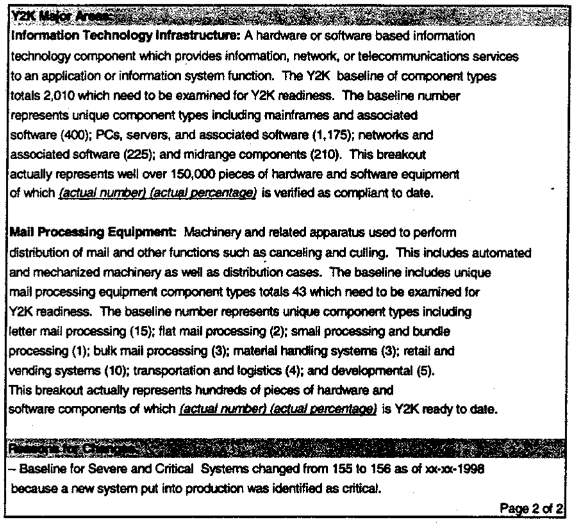
Y2K Major Area	**Baseline Inventory**	**Status**	**No. Verified as Compliant (PIV'ed)**	**Est. Completion Date or Verified as Compliant**
Information Systems:		**Remediated**		
o Severe and Critical	156	114	6	TBD
o Important, Not Critical	354	296	12 (Optional)	TBD
o IT Infrastructure	2010**	1,481	0	Jul-99
		Y2K Ready		
o Interfaces (internal/external)	3,186*	0	N/A	TBD
		Completed		
o IS Contingency Plans	156	0	N/A	Oct-99
	Current Known Inventory	**Y2K Ready**	**No. Verified as Compliant (PIV'ed)**	**Est. Completion Date or Verified as Compliant**
Non-Info Systems:				
**** Mail Processing Equip.**				
o Severe and Critical	43**	27	0	TBD
o Important, Not Critical	33	18	0	TBD
**** Suppliers**				
o Severe and Critical	563*	2	N/A	Sep-99
o Important, Not Critical	3,650*	7	N/A	Sep-99
**** Facility Sites**				
o Severe and Critical-HQ	None	None	N/A	N/A
o Important, Not Critical-HQ	131*	10	N/A	TBD
o Severe and Critical-Fld	1,200*	0	N/A	Sep-99
o Important, Not Critical-Fld	30,073*	0	N/A	Sep-99
		Completed		
Corporate Y2K Issues:				
o Business Continuity Plan	Unknown	0	N/A	Aug-99
o Systems Readiness Testing	Unknown	0	N/A	TBD
o Non-IS Readiness Testing	Unknown	2	N/A	TBD
				Page 1 of 2

Chart 3

Legend: The yellow areas represent issues that are a high priority and at a minimum need to be performed. The single asterisk indicates baseline not complete. Double asterisk indicates clarifying information provided on page 2 of status report (see page 10). TBD denotes dates to be determined. N/A indicates post implementation verification not applicable.

A chart such as this (and the second page shown below) clearly shows some progress towards Y2K compliance in the information systems areas. At the same time, the report indicates that Y2K efforts on non-information systems and corporate issues are not being performed in a timely fashion. If reports similar to this example were used, management might have been in a position to identify and implement necessary changes. For example, a parallel track to handle non-information systems issues implemented concurrently with the information systems work might have moved USPS further along than they are at present. At this point, USPS senior managers have lost time-critical opportunities to shift priorities and make important resource and budget decisions. Once a standardized report is developed, senior USPS managers will more readily be able to monitor the status of major Y2K areas and make timely, informed decisions.

Sample Year 2000 Status Report – Explanations



Y2K Major Areas:

Information Technology Infrastructure: A hardware or software based information technology component which provides information, network, or telecommunications services to an application or information system function. The Y2K baseline of component types totals 2,010 which need to be examined for Y2K readiness. The baseline number represents unique component types including mainframes and associated software (400); PCs, servers, and associated software (1,175); networks and associated software (225); and midrange components (210). This breakout actually represents well over 150,000 pieces of hardware and software equipment of which *(actual number) (actual percentage)* is verified as compliant to date.

Mail Processing Equipment: Machinery and related apparatus used to perform distribution of mail and other functions such as canceling and culling. This includes automated and mechanized machinery as well as distribution cases. The baseline includes unique mail processing equipment component types totals 43 which need to be examined for Y2K readiness. The baseline number represents unique component types including letter mail processing (15); flat mail processing (2); small processing and bundle processing (1); bulk mail processing (3); material handling systems (3); retail and vending systems (10); transportation and logistics (4); and developmental (5). This breakout actually represents hundreds of pieces of hardware and software components of which *(actual number) (actual percentage)* is Y2K ready to date.

Reasons for Changes:

– Baseline for Severe and Critical Systems changed from 155 to 156 as of xx-xx-1998 because a new system put into production was identified as critical.

Page 2 of 2

Note: The actual breakout numbers are estimated or, in some cases, were not readily available to us at the time this report was issued. The Program Management Office should include these numbers when developing this or a similar briefing/report for senior management.

Reporting problems resulted because (1) standards for conveying the status of Y2K activities to senior management were not established at the onset of the project, (2) comprehensive Y2K inventories were not developed timely, and (3) information was gathered on a piecemeal basis because various Y2K databases were not consolidated or interfaced.

Recommendations

We recommend the Deputy Postmaster General direct the Vice President, Information Systems to:

1. Develop a "standardized report" to be included in briefings that discloses all Year 2000 areas and provide them on a frequent (e.g., biweekly) basis to senior management.
2. Ensure that the "standardized report" includes, at a minimum, the following: (1) all major Year 2000 areas, (2) original baseline figures, any changes to the baseline and reason for change, and target dates, and (3) definitions of terms, as appropriate. Also, details should be provided on baselines, such as mail processing equipment, information technology infrastructure, etc., to show the magnitude of the effort to be undertaken.
3. Consolidate and link USPS Year 2000 databases to provide a complete, centralized repository of Year 2000 project information.
4. Re-evaluate priorities given the non-information systems and corporate Year 2000 issue areas and shift or identify additional resources to address them as soon as possible.

Major contributors to this report:	David I. Berran Robert J. Batta Anne Murphy Frank Davenport Roland Cuellar Marvin Stith

Michael S. Coughlin
Deputy Postmaster General

UNITED STATES
POSTAL SERVICE

February 11, 1999

KARLA CORCORAN

SUBJECT: Response to the "Year 2000 Initiative: Program Management Office Reporting" Report

Attached are comments on the United States Postal Service Office of the Inspector General DRAFT Report titled "Year 2000 Initiative: Program Management Office Reporting," dated December 22, 1998.

Reporting has been one of the more formidable challenges for the Year 2000 Initiative. As you know, we have been paying particular attention to the reporting process recently and appreciate your review and feedback. We are looking forward to sustaining a continuous dialogue with you and members of your staff as we move forward with plans to implement your recommendations.

For some time now, we have been working to develop briefings and reports which provide both a current status and a "look forward." We have standardized such reports for remediation work, and senior management has confirmed these reports meet their needs.

We are now working toward applying the same approach to the remainder of the program. We believe this approach will generally resolve the issues you have raised, though we expect to have some difficulty portraying all aspects of this large, complex program in a concise, readily comprehensible form.

We are committed to providing accurate, consistent data in our briefings to both internal and external audiences. We envision that our briefing format, as in the past, will be flexible enough to allow us to provide detail when appropriate and to focus on specific issues and risks when needed. We will continue to work with you and your staff until your concerns are resolved.

Listed below are our comments on the recommendations provided in your report. For clarity, the recommendations from your report are reprinted in **bold font**.

1. **Develop a "standardized report" to be included in briefings disclosing all Year 2000 areas and provide them on a frequent (e.g., bi-weekly) basis to senior management.**

   Comment: Agree. Action on this recommendation for a "standardized report is complete for remediation. The Year 2000 Program Management Office (PMO) began regular reporting in 1997. Beginning in June 1998, at the request of the then newly assigned Portfolio Managers, the "Windows" report format was adopted as a standard report. Data in the Windows reports is updated, and reports are generated on a twice-per-month basis. Portfolio Managers report progress to their respective business executives on a schedule established by that executive (typically monthly). Beginning December 1998, a new standard for monthly reports was adopted by senior management.

   Decision briefings (to management) should not be standardized, except to the extent that they provide a short overview and then focus on the key issue(s). Information briefings (to general audiences) may be standardized as recommended. It may be more effective to provide a "standardized report" at the time of briefings and highlight specific areas of attention targeted to the specific audience.

2. **Ensure that "the standardized report" includes at a minimum the following: (1) All major Year 2000 areas; (2) original baseline figures, and changes to the baseline and reason for change, and target dates; and (3) definitions of terms, as appropriate. Also, details should be provided on baselines, such as mail processing equipment, information technology infrastructure, etc., to show the magnitude of the effort to be undertaken.**

   Comment: Agree. Action on the part of this recommendation pertaining to reporting is complete. While standards apply to all Portfolios, reports and baseline data are tailored to focus on activities unique to a Portfolio or on a particular phase of activity (e.g., remediation, testing, post implementation verification, contingency planning, etc.). Report formats have been and may continue to be changed

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to better highlight issues or to focus decision-making activity. For instance, a troubling gap between the number of mission critical system applications reported as remediated and the number verified was included in Windows reports beginning in July 1998. That gap was not receiving priority attention until the PMO presented essentially the same data in a new, graphic format to senior officers and the Management Committee in October 1998.

Standard terms and definitions have been published in the MI. A glossary of terms is also provided on the Year 2000 MWeb.

3. **Consolidate and link USPS Year 2000 databases to provide a complete, centralized repository of Year 2000 project information.**

   Comment: Agree. This remains an open action item. The target date for resolution is the end of March 1999. The PMO requires ready access to a broad range of reliable data. However, the effort to create a complete, centralized repository may not be justifiable, given the time remaining and the funding required. Rather, the PMO will continue to seek and sustain access to required data. Toward that end, some databases have been consolidated. In other cases, links have been established. As additional, reliable Year 2000 data becomes available, the PMO will gain access using the most practical and cost-effective approach available. Portfolio Managers and responsible business executives remain responsible for the accuracy and quality of the reported data.

4. **Re-evaluate priorities given the non-information systems and corporate Year 2000 issue areas and shift or identify additional resources to address them as soon as possible.**

   Comments: Agree. This is a continuous activity (no end date). Priorities and resources are continuously re-evaluated, reassigned, and/or acquired. For instance, priorities and resource allocations were re-evaluated in the summer 1998 timeframe (with the assignment of Year 2000 projects to "tiers"). Today, business leaders, working with Portfolio Managers, are constantly adjusting resource allocations to achieve the objectives of the Year 2000 Initiative. For example, as the remediation, testing and verification activities for the applications portfolios wind down, management attention and resources are being aligned and focused on contingency and business continuity planning, and simulation (readiness) testing.

Michael S. Coughlin

UNITED STATES POSTAL SERVICE
OFFICE OF INSPECTOR GENERAL

YEAR 2000 INITIATIVE:
POST IMPLEMENTATION VERIFICATION

September 29, 1998

Audit Report Number IS-AR-98-003

This is a Year 2000 Readiness Disclosure as defined in PL 105-271, Year 2000 Information and Readiness Disclosure Act. The information contained in this United States Postal Service document is based on information available as of the date of publication and is subject to change.

KARLA W. CORCORAN
INSPECTOR GENERAL

September 29, 1998

MICHAEL S. COUGHLIN
Deputy Postmaster General

NOMAN E. LORENTZ
Senior Vice President, Chief Technology Officer

SUBJECT: Year 2000 Initiative: Post Implementation Verification (IS-AR-98-003)

This report presents the results of our review of the USPS Year 2000 (Y2K) Initiative. This report is the third in a series dealing with the Y2K initiative. During this review we noted that the Post Implementation Verification process needed improvement. Management agreed with our findings and recommendations. The corrective actions taken or planned are responsive to the issues raised in our report.

The cooperation and courtesies provided by your staff during the audit were appreciated.

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USPS YEAR 2000 INITIATIVE:
Post Implementation Verification

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EXECUTIVE SUMMARY

Results in brief

The year 2000 (Y2K) problem results from the way in which computer systems store and process dates. In many systems, the year 2000 will be indistinguishable from 1900, thereby causing potential system failures.

This is the third in a series of the Office of Inspector General (OIG) reports regarding the Y2K initiative. Our first report addressed the "Awareness" and "Assessment" phases of the USPS Y2K Initiative. The second provided a preliminary assessment of the "Renovation," "Validation," and "Implementation" phases. Additional information on prior audit coverage is provided on page 4. As part of our audit coverage of the USPS Y2K initiative, we were asked by the Y2K Project Manager to provide a review of the Post Implementation Verification (PIV) process for effectiveness and efficiency. This report addresses aspects of that process.

Remediation of systems applications for Y2K compliance primarily rests with USPS business managers and project leaders. The application project leaders are responsible for certifying that all application code has been reviewed for date implications, remediated, tested, and documented accordingly. The Portfolio Manager certifies the application as Y2K compliant and sends the certification to the Project Management Office (PMO). The PMO then initiates the PIV process.

The PIV process, instituted by the PMO, is an independent verification of the Y2K remediation[1] process to ensure that USPS systems applications are Y2K compliant and will operate correctly in the year 2000 and beyond. The PMO is responsible for the oversight of the contractors performing PIV.

The tasks that constitute PIV were developed by the USPS PMO and contractor staff and are being carried out by contractor personnel experienced in code review and conversion. The PIV has increased Y2K accountability by requiring USPS managers to submit all of their severe and critical applications for verification. However, the PIV process could not provide reasonable assurance that all severe and critical applications (166) would be independently verified before the Year 2000. This conclusion is based upon the fact that (a) Portfolio managers have certified and submitted applications for PIV without complete documentation; (b) applications were not submitted in a timely manner; and (c) all source code that had been reviewed in remediation was being reviewed again in PIV. In addition, there remains approximately 400 noncritical application systems that need to be remediated before their projected failure dates.

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[1] A process whereby USPS systems applications are corrected in order to make them Y2K compliant.

The PMO originally hired only one contractor to perform PIV. However, recognizing the enormity of the PIV task, the PMO hired two additional contractors in June 1998. We believe there are additional procedures, such as selective statistical sampling of source code, that have not been considered that could further expedite the PIV process.

Taking timely action to implement our recommendations would allow USPS PIV contractors to process severe and critical application systems more quickly and help USPS identify application systems problems before a serious date-related failure occurs. See Appendix I for a statistical sampling plan that may be used on this project.

Recommendations

The Vice President, Information Systems should direct Portfolio Managers to:

1. Certify and submit applications within 30 days of being remediated and tested.

2. Ensure applications include all required documentation before being certified.

3. Direct contractors to (a) help USPS remediation teams develop adequate Y2K test plans and remediation documentation and (b) assist in the correction of applications sent back from PIV.

The Vice President, Information Systems should also direct the PMO to:

4. Reject application systems that are submitted without complete Y2K test plans and documentation and formally notify the responsible Vice President and Chief Information Officer (CIO) that the application was rejected.

5. Develop and implement a statistical sampling plan for reviewing application code as soon as test plans and documentation become more acceptable.

Management Comments

The Deputy Postmaster General concurred with all findings and recommendations included in this report and has planned or taken corrective actions to improve USPS' efforts to meet the Year 2000 challenge.

Evaluation of Management Comments

The corrective actions USPS management has planned in response to our recommendations are appropriate and, when fully implemented, should respond adequately to the recommendations.

INTRODUCTION

The Y2K problem results from the way dates are recorded and calculated in computer systems. In the past, to conserve electronic data storage, systems have typically used two digits to represent the year, such as "98" representing 1998. With this two-digit date format, however, the year 2000 is indistinguishable from 1900, 2001 from 1901, and so on. As a result of this ambiguity, application systems that use dates to perform calculations may fail after 1999.

The USPS manages over 600 application systems related to internal and external operations. The application systems provide for critical tasks and encompass a wide variety of platform designs, operating systems, and programming languages.

The USPS conducts renovation, validation, testing, and certification of its systems applications to ensure Y2K compliance. The responsibility to ensure that application systems are Y2K compliant remains with the USPS business managers, system Project Leader, and Portfolio Manager. The PIV program is directed by the Y2K PMO, which has the responsibility for overall verification of systems applications. The PMO determined it was necessary to establish a review of systems applications, after remediation, to provide independent assurance that they were Y2K compliant. To accomplish this objective, the PMO appointed a PIV Coordinator and hired contractors to conduct PIV tests under the direction of the PMO.

Management Accomplishments

The PMO has invested considerable effort in making the PIV process successful. A few of the accomplishments include: developing standard USPS PIV procedures and processes; hiring three contractors to help perform PIV; and verifying Y2K compliance of 16 converted application systems. In addition, the PIV Coordinator is constantly revising the PIV procedures to meet the dynamics of the USPS systems environment.

Objective, Scope, and Methodology

Our overall objective was to determine whether the PIV process was effective and efficient. Specifically, we wanted to determine if the PIV process was timely and provided reasonable assurance that application systems that had been remediated were Y2K compliant.

At the request of the PMO, we reviewed the PIV process used to independently verify Y2K compliance of USPS application systems. In accessing the PIV process, we looked at applications submitted for PIV during June and July 1998.

We reviewed numerous documents, including USPS PIV procedures, system inventories, test plans, and schedules. We also analyzed internal tracking reports developed by the PMO to monitor the progress of Y2K activities.

We also discussed USPS Y2K activities related to this report with officials in various headquarters offices, including the Y2K Project Manager and leaders, PIV Coordinator, and contracted PIV personnel. Our audit work was accomplished during the period June through August 1998. This review was conducted in accordance with generally accepted government auditing standards and included such tests of internal controls as we considered necessary under the circumstances.

Prior Audit Coverage

This is the third in a series of OIG reports regarding the Y2K initiative. Our first report was "Year 2000 Initiative" (IS-AR-98-001, March 31, 1998). During this review, we examined the awareness and assessment phases of the USPS Y2K initiative and made recommendations for improvement in several areas including assigning accountability to responsible managers. USPS Management concurred fully with our findings and recommendations.

Our second report was "Year 2000: Status of the Renovation, Validation, and Implementation Phases" (IS-AR-98-002, July 21, 1998). This report involved a preliminary assessment of the renovation, validation and implementation phases of the USPS Y2K initiative. It contained recommendations for improvement in several areas including accurately reporting the compliance status of application systems. USPS Management concurred fully with our findings and recommendations.

No prior audits were conducted by the Inspection Service or the General Accounting Office regarding specific USPS Y2K initiatives.

Post Implementation Verification

Results

Background

The PIV process, instituted by the PMO, is an independent verification of the Y2K remediation[2] process to ensure that USPS systems applications are Y2K compliant and will operate correctly in the year 2000 and beyond. The PMO is responsible for the oversight of the contractors performing PIV. A description of how the PIV process fits into USPS Y2K Initiative follows.

Remediation of systems applications for Y2K compliance primarily rests with USPS business managers and project leaders. The application project leaders are responsible for certifying that all application code has been reviewed for date implications, remediated, tested, and documented accordingly. The Portfolio Manager certifies the application as Y2K compliant and places it into production. The certification is sent to the PMO who initiates the PIV process.

The PMO PIV Coordinator selects the applications to send to the PIV contractor based on the application's criticality and estimated failure date. Next, the PIV testing group requests the USPS project leader to submit all application documentation, source code, test plans, and Y2K compliance testing documentation.[3] The PIV group reviews testing documentation and utilizes an automated tool to identify lines of source code for date-related items to be reviewed. The PIV group then performs a 100 percent manual review of all code for any date-related items the automated tool may have missed. Finally, PIV personnel visit the office where the application is run and observe Y2K tests performed by the project leader.

Table 1, Status of USPS Application Systems Undergoing PIV, provides the total number of USPS systems applications and the status of the systems in the various stages of the PIV process as of July 24, 1998. The table indicates that only about 12.5 percent of severe and critical applications had been nominated for PIV as of this date. The timeliness of applications being nominated[4] for PIV will be reviewed in more depth and addressed in a follow-up report.

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[2] A process whereby USPS systems applications are corrected in order to make them Y2K compliant.

[3] The PIV process has been delayed by inaccurate or incomplete source code and documentation.

[4] The PIV coordinator nominates systems applications by choosing which applications to send to the PIV contractor based on the application's criticality and estimated failure date.

Status of USPS Application Systems Undergoing PIV
as of July 24, 1998

Application Classification[5]	Application Systems	Submitted for PIV	In PIV Process	Verified by PIV As Compliant
Severe and Critical Applications	166	21	14	5
Non-Critical Applications	464	44	35	11
Total Systems	630	65	49	16

PIV Effectiveness and Efficiency

The PIV process provided reasonable assurance that applications completing PIV were Y2K compliant. For example, during the pilot PIV process, the PIV team found that 9 of 15 systems reviewed were non-compliant. Since the formal PIV started in February 1998, all applications reviewed have been verified compliant.

However, in our view, the PIV process was not as efficient as it could have been and changes need to be made quickly. For example, the PIV team was only verifying an average of four applications per month during the period January through July 1998. In addition to the full code review, applications were submitted without documentation or test plan descriptions. Furthermore, project leaders and portfolio managers have been reluctant to send their applications to PIV, stating the PIV process is too time-consuming. The challenges facing the PIV process are discussed below.

Incomplete Submissions

Portfolio managers certified and submitted applications to PIV without complete documentation. For example, USPS PIV procedures require the submission of test plans at the time the application is submitted for PIV. However, PIV team personnel stated that they had not received complete test plans with any application submitted for PIV to date. Test plans are necessary to focus on the remediated parts of an application and also help determine where to focus source code reviews. The PIV team has been informally helping project leaders and Portfolio Managers develop test plans in order to complete PIV. Helping develop test plans diverts assigned PIV resources and slows down the PIV process.

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[5] All severe and critical application systems are required to go through the PIV process whereas the non-critical systems are "subject" to PIV at the discretion of the PMO.

Applications Not Submitted Timely

Applications were not submitted for PIV as soon as they were remediated and certified. For example, prior to July 1998, all the Information Business System Support Centers (IBSSC) combined only submitted 10 of their 330 applications for PIV. The Minneapolis IBSSC did not submit any of its 120 applications. Planning for the use of PIV resources is more difficult when applications are not submitted in a timely manner or are held and submitted in large groups.

100 Percent Code Review

At the time of our audit, the PIV team was reviewing 100 percent of the source code for all applications received. According to the PMO, it was not its original intention to do complete code reviews. This practice evolved as a means of coping with the applications submitted during the pilot PIV. The applications lacked documentation and contained a great deal of unremediated code. By contrast, the PIV team indicated that when the formal PIV process started, they found that most code had been remediated. However, documentation and test plans were still missing, thus necessitating continuation of the 100 percent code review. According to the PIV team, the average team member spends about 5 hours to review 1,000 lines of code. The USPS has 166 severe and critical application systems that contain as much as 100 million lines of code[6]. Under the current PIV process, the only way the severe and critical code could be reviewed before the year 2000 would be if at least 33 individuals reviewed code every minute of every day, including weekends, until December 31, 1999.

PMO personnel stated that the PIV process was designed to serve as a quality assurance (QA) review to help ensure the proper remediation of applications. A sound method of quality assurance starts with establishment of objectives and standards. In this case the objective is for USPS application systems to be Y2K compliant. Management has defined what it means for an application to be Y2K compliant. The next step of QA involves developing and implementing procedures to provide management with reasonable assurance that objectives and standards were met (is the application Y2K compliant?). Reasonable assurance does not imply absolute assurance and should be achieved by expending the least amount of resources. A QA function, by definition, involves an agreed upon, limited review or sampling of items or, in this case, lines of code, to spot check the quality of results involved to make an application Y2K compliant. Current procedures entail expending nearly as much effort as the remediation process itself. This is an inefficient use of staff, time-consuming, costly, and provides no guarantees that all unremediated code will be identified.

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[6] The 100 million lines of code was based on the Rough Order Of Magnitude Study dated June 1998.

We commend the PIV coordinator and contractor for establishing a high assurance level for reviewing remediated code. However, the current PIV process is so time-consuming that all severe and critical applications may not be verified before the Year 2000. Therefore, we believe a more efficient PIV approach involving the use of a well-designed statistical sampling plan could be followed with little loss to the current assurance level. See Appendix I for a statistical sampling plan that may be used on this project.

Recommendations

The Vice President, Information Systems should direct Portfolio Managers to:

1. Certify and submit applications within 30 days of being remediated and tested.

2. Ensure applications include all required documentation before being certified.

3. Direct contractors to (a) help USPS remediation teams develop adequate Y2K test plans and remediation documentation and (b) assist in the correction of applications sent back from PIV.

The Vice President, Information Systems should also direct the PMO to:

4. Reject application systems that are submitted without complete Y2K test plans and documentation and formally notify the responsible Vice President and CIO that the application was rejected.

5. Develop and implement a statistical sampling plan for reviewing application code as soon as test plans and documentation become more acceptable.

PIV Code Sampling Plan
Example

This statistical sampling plan described below was designed for us by an experienced statistician and is an example that management could apply to help expedite the PIV process. If implemented, this sampling plan would replace the PIV 100 percent code inspection practice. Neither of these processes, i.e., 100 percent code inspection nor the sampling technique, will guarantee that all applications reviewed are completely Y2K compliant, but the statistical approach would reduce the amount of time necessary to complete an application review.

PIV team members told us that the number of errors found while reviewing code was low. Therefore, this sampling plan uses a low error rate (.04). An error is defined as an unremediated or incorrectly remediated date-dependent item that may cause the application to fail in the year 2000 or beyond. Table 1, PIV Statistical Sampling Parameters, shows by category of system the target parameters at 95 percent or higher confidence level with a plus/minus 1 percent precision, and the estimated maximum sample size.

To apply this plan, one would follow the existing procedures to the point of identifying date-related items using the automated tool. Next, PIV team members would calculate the number of date-related lines of code identified by the tool and the number of lines not date-related, i.e., the remainder. Using the table below, the PIV team would separately sample both universes of code. They would examine only those lines of code that appeared in each sample, starting with the date-related sample first. If an error is found, the application system containing the error should be returned to its project leader for additional rework. This plan assumes that a 100 percent code inspection will be performed for those systems containing 2,500 lines or less. During code reviews of non-critical applications, the PIV team would only review the date-related sample.

Table 1: PIV Statistical Sampling Parameters

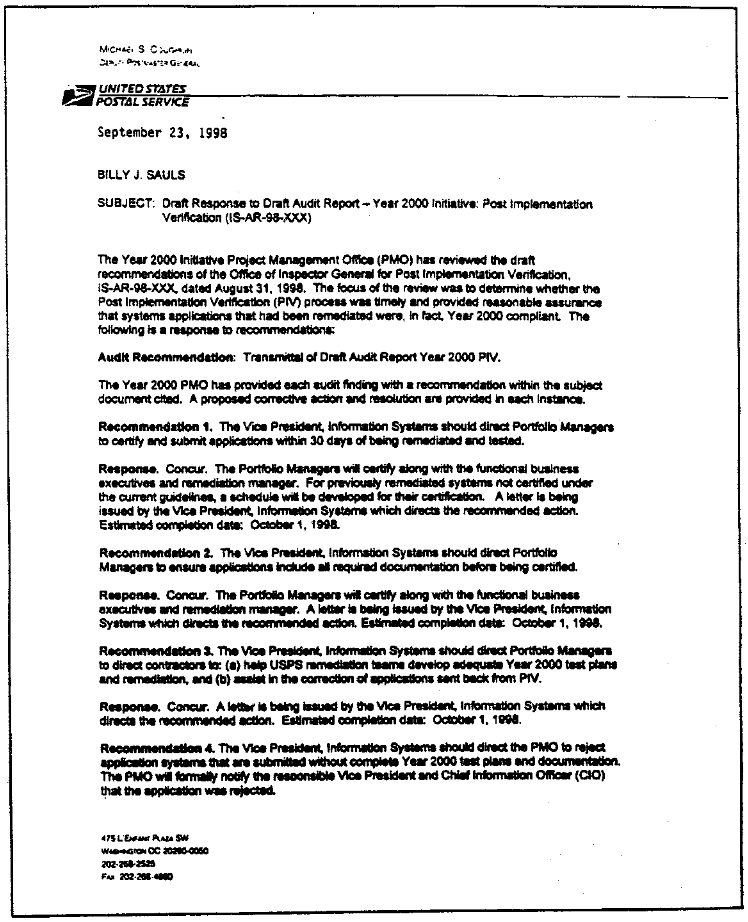
Category of System	Confidence Level	Precision	Maximum Sample Size*
Severe	99 percent	.01	2,500 lines of code
Critical	99 percent	.01	2,500 lines of code
Non-Critical	95 percent	.01	1,500 lines of code

* Maximum sample size assumes a 4 percent error rate.

Calculate the sample size using the following formula: $n=(z/b)^2$ times (pq)

The terms of the formula are defined as follows: n = sample size
z = confidence coefficient for desired confidence level (z = 2.58 for 99 percent confidence) and (z = 1.96 for 95 percent confidence).
b = precision desired
p = error rate expected
q = 1 minus the error rate = rate of non-error

MANAGEMENT COMMENTS



Michael S. Coughlin
Deputy Postmaster General

UNITED STATES
POSTAL SERVICE

September 23, 1998

BILLY J. SAULS

SUBJECT: Draft Response to Draft Audit Report – Year 2000 Initiative: Post Implementation Verification (IS-AR-98-XXX)

The Year 2000 Initiative Project Management Office (PMO) has reviewed the draft recommendations of the Office of Inspector General for Post Implementation Verification, IS-AR-98-XXX, dated August 31, 1998. The focus of the review was to determine whether the Post Implementation Verification (PIV) process was timely and provided reasonable assurance that systems applications that had been remediated were, in fact, Year 2000 compliant. The following is a response to recommendations:

Audit Recommendation: Transmittal of Draft Audit Report Year 2000 PIV.

The Year 2000 PMO has provided each audit finding with a recommendation within the subject document cited. A proposed corrective action and resolution are provided in each instance.

Recommendation 1. The Vice President, Information Systems should direct Portfolio Managers to certify and submit applications within 30 days of being remediated and tested.

Response. Concur. The Portfolio Managers will certify along with the functional business executives and remediation manager. For previously remediated systems not certified under the current guidelines, a schedule will be developed for their certification. A letter is being issued by the Vice President, Information Systems which directs the recommended action. Estimated completion date: October 1, 1998.

Recommendation 2. The Vice President, Information Systems should direct Portfolio Managers to ensure applications include all required documentation before being certified.

Response. Concur. The Portfolio Managers will certify along with the functional business executives and remediation manager. A letter is being issued by the Vice President, Information Systems which directs the recommended action. Estimated completion date: October 1, 1998.

Recommendation 3. The Vice President, Information Systems should direct Portfolio Managers to direct contractors to: (a) help USPS remediation teams develop adequate Year 2000 test plans and remediation, and (b) assist in the correction of applications sent back from PIV.

Response. Concur. A letter is being issued by the Vice President, Information Systems which directs the recommended action. Estimated completion date: October 1, 1998.

Recommendation 4. The Vice President, Information Systems should direct the PMO to reject application systems that are submitted without complete Year 2000 test plans and documentation. The PMO will formally notify the responsible Vice President and Chief Information Officer (CIO) that the application was rejected.

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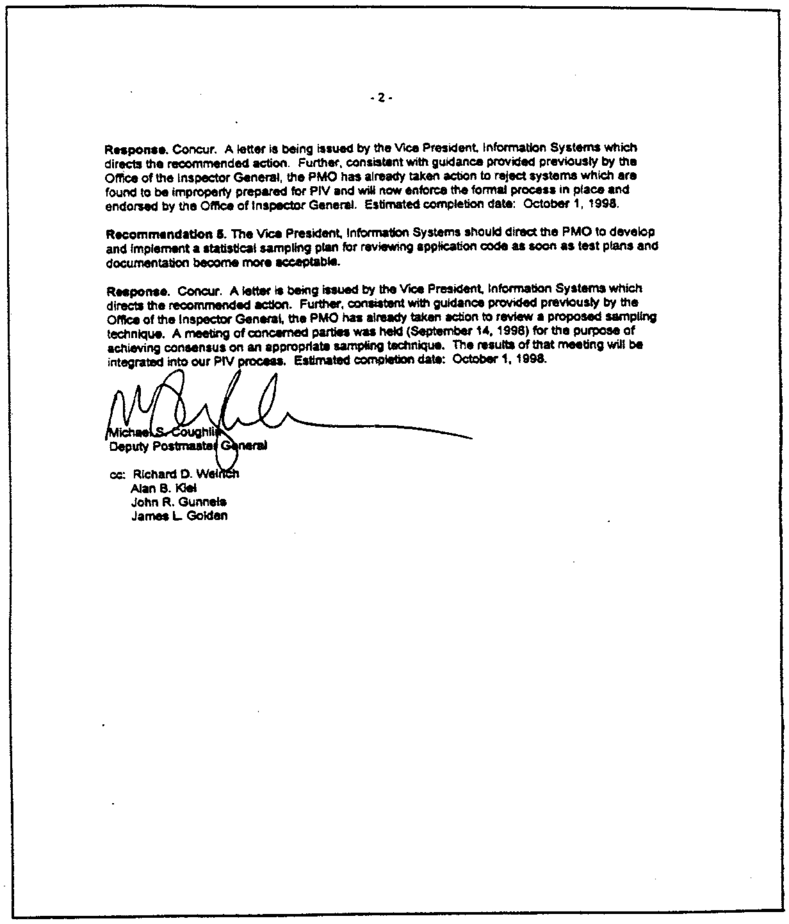

Response. Concur. A letter is being issued by the Vice President, Information Systems which directs the recommended action. Further, consistent with guidance provided previously by the Office of the Inspector General, the PMO has already taken action to reject systems which are found to be improperly prepared for PIV and will now enforce the formal process in place and endorsed by the Office of Inspector General. Estimated completion date: October 1, 1998.

Recommendation 5. The Vice President, Information Systems should direct the PMO to develop and implement a statistical sampling plan for reviewing application code as soon as test plans and documentation become more acceptable.

Response. Concur. A letter is being issued by the Vice President, Information Systems which directs the recommended action. Further, consistent with guidance provided previously by the Office of the Inspector General, the PMO has already taken action to review a proposed sampling technique. A meeting of concerned parties was held (September 14, 1998) for the purpose of achieving consensus on an appropriate sampling technique. The results of that meeting will be integrated into our PIV process. Estimated completion date: October 1, 1998.

Michael S. Coughlin
Deputy Postmaster General

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UNITED STATES POSTAL SERVICE
OFFICE OF INSPECTOR GENERAL

YEAR 2000 INITIATIVE: STATUS OF THE RENOVATION, VALIDATION AND IMPLEMENTATION PHASES

July 21, 1998

Audit Report Number IS-AR-98-002

This is a Year 2000 Readiness Disclosure as defined in PL 105-271, Year 2000 Information and Readiness Disclosure Act. The information contained in this United States Postal Service document is based on information available as of the date of publication and is subject to change.

Karla W. Corcoran
Inspector General

July 21, 1998

MICHAEL S. COUGHLIN
Deputy Postmaster General

SUBJECT: Year 2000 Initiative (IS-AR-98-002)

This report presents the results of our review of the USPS Year 2000 (Y2K) Initiative. This report is the second in a series dealing with the Y2K initiative. During this review we noted that executive operating systems were not always compliant, application remediation was not effectively challenged, systems were not effectively tested for Y2K compliance, and application status reporting was inaccurate. Management agreed with our findings and recommendations. The corrective actions taken or planned are responsive to the issues raised in our report.

The cooperation and courtesies provided by your staff during the audit were appreciated.

Karla W. Corcoran

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USPS YEAR 2000 INITIATIVE: STATUS OF THE RENOVATION, VALIDATION AND IMPLEMENTATION PHASES

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EXECUTIVE SUMMARY

Results in brief

The year 2000 (Y2K) problem results from the way in which computer systems store and process dates. In many systems, the year 2000 will be indistinguishable from 1900, thereby causing potential system failures. If left uncorrected, we believe the United States Postal Service (USPS) could face critical computer system failures, which may hinder mail movement.

Due to the critical implications of the Y2K issue, we are providing continuous audit coverage to the area. Since many of the issues are "time sensitive," we plan to issue interim reports to management officials that include assessments of ongoing efforts as well as recommendations for corrective actions when warranted. This report is the second we have issued on the Y2K initiative. Our first report[1] addressed the "Awareness" and "Assessment" phases of the USPS Y2K initiative. This report provides a preliminary assessment of the "Renovation," "Validation," and "Implementation" phases."

Since our previous report, USPS officials have made progress on the Y2K challenge. Despite this progress; however, there are significant Y2K issues facing the USPS that warrant further attention. Our current review disclosed:

- executive operating systems were not always Y2K compliant;
- non-critical application remediation was not effectively challenged;
- applications in production were not always tested; and
- application status was not reported accurately.

Taking timely action to correct these problems should minimize or eliminate potential disruptions in USPS service resulting from non Y2K compliant systems.

As we stated in our first report, we believe the Y2K project is at least a year behind schedule for a successful Y2K conversion. As a result, the USPS had not performed enough work for us to complete a thorough assessment of the "Renovation," "Validation," and "Implementation" phases. However, we felt it was necessary to provide management with a current assessment as they continue working on the Y2K problem.

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[1] Year 2000 Initiative, USPS Office of Inspector General, IS-AR-98-001, March 31, 1998.

Recommendations

The Deputy Postmaster General should direct appropriate USPS personnel to:

Recommendation (1) use a compliant executive operating system software release,
Recommendation (2) apply the USPS Y2K guideline of challenging the need for each existing component or application at the completion of the BIAs,
Recommendation (3) develop procedures to hold USPS managers and operations personnel accountable for application testing[2], and
Recommendation (4) report applications as Y2K compliant only if they have been thoroughly tested for compliance.

Management Comments

The Deputy Postmaster General concurred with all findings and recommendations included in this report and provided the following general statement: *"During the last few months the USPS YEAR 2000 Project Management Office has made major progress toward engaging USPS executives in accomplishing the YEAR 2000 challenge. For example, business impact assessments (BIAs) have been completed for each major business area. These assessments have become instrumental in helping management focus on the most critical YEAR 2000 issues. In addition, applications have been prioritized and grouped into an initial set of releases according to function and failure date. Responses to specific recommendations will reflect the results of these activities. The YEAR 2000 initiative is a critical project for the Postal Service."* See Appendix II for comments on each recommendation.

Evaluation of Management Comments

Management's planned and completed actions are responsive to the issues raised in this report.

INTRODUCTION

The year 2000 (Y2K) problem results from the way dates are recorded and computed in many computer systems. For the past several decades, systems have typically used two digits to represent the year, such as "98" representing 1998, in order to conserve on electronic data storage and reduce operating costs. With this two digit date format; however, the year 2000 is indistinguishable from 1900, 2001 from 1901, and so on. As a result of this ambiguity, system or application programs that use dates to perform calculations, comparisons, or sorting may generate incorrect results when working with years after 1999.

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[2] Corrective action began during our review to hold appropriate personnel responsible for application testing.

In light of the critical challenge facing the USPS, The Deputy Postmaster General requested that we review USPS actions to achieve Y2K information systems compliance. This report reflects the results of our ongoing Y2K review. This is the second in a series of reports designed to offer our assessment as well as recommendations to USPS management.

The USPS depends on information systems to perform a variety of critical tasks. The USPS manages over 600 systems applications related to internal and external operations. The systems applications encompass a wide variety of platform designs, operating systems, and programming languages. As a system-dependent organization, the USPS is highly susceptible to the Y2K problem.

To effectively manage the Y2K challenge, the USPS established a Project Management Office (PMO). As noted in our previous report on the Y2K initiative, the PMO has been aggressively addressing many of the Y2K challenges facing the USPS[3]. Since our previous report, the PMO has established and implemented an organization wide Business Impact Assessment (BIA) and Post Implementation Verification (PIV) process. In addition, the PMO has developed a rough order of magnitude for Y2K costs and a framework for Y2K accountability. Despite this progress, there are significant issues facing the USPS Y2K initiative that warrant further attention.

Five phases are widely accepted by federal and private entities for completing a Y2K conversion[4].

Awareness
Assessment
Renovation
Validation
Implementation

Our first report addressed the awareness and assessment phases. This report represents a preliminary review of USPS progress in the renovation, validation and implementation phases. Each phase is addressed separately below.

Objective

Our overall objective was to determine whether the USPS was taking effective actions to achieve Y2K compliance.

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[3] Year 2000 Initiative, USPS Office of Inspector General, IS-AR-98-001, March 31, 1998.

[4] A diagram outlining the five phases as well as time-line for their completion is provided at Appendix 1.

Scope

In assessing the actions taken by USPS during the renovation, validation and implementation phases, we reviewed numerous documents, including individual system summary and detailed plans, system inventories, test plans, and schedules. We also analyzed internal tracking reports developed by the PMO to monitor the progress of Y2K activities. In addition, we performed a limited review of operating systems used at Integrated Business Systems Solutions Centers (IBSSC), and reviewed a limited sample of applications to determine the extent of Y2K testing.

We discussed USPS Y2K activities related to this report with officials in various headquarters offices, including the Y2K project manager, contracted PMO personnel, and several application program mangers at the IBSSCs.

Methodology

The General Accounting Office (GAO) has issued an assessment guide for use by both the private and public sector in evaluating Y2K compliance projects. The GAO Year 2000 Assessment Guide identifies five phases of a Y2K conversion. (See Appendix I) We used the GAO Year 2000 Assessment Guide in evaluating USPS readiness to achieve Y2K compliance.

We conducted our review from January through May 1998 and reviewed documentation processed through April 1998. This review was conducted in accordance with generally accepted government auditing standards.

RENOVATION

Background

After an organization completes the "Awareness" and "Assessment" phases of a Y2K initiative, the third phase (renovation--conversion, replacement, retirement) must be undertaken. In this phase, operating officials should make and document required software and hardware changes, develop replacement systems, and decommission retired systems.

It becomes a business decision to upgrade software of old applications that have been operating accurately for an extended period. It is not cost effective to upgrade for the sake of upgrading. However, for systems to run correctly into the next millennium, all software must be Y2K compliant. The operating system is the foundation for running applications. Year 2000 compliant applications will not function if operating systems are non-compliant. The USPS uses MVS as the primary operating system in its mainframe environment. In conjunction with MVS, the USPS uses an executive operating system Customer Information Control System (CICS) for running most mainframe applications.

Results

Executive operating systems not always compliant

The USPS was not using a Y2K compliant version of the executive operating system software CICS. This occurred because IBSSC personnel had just obtained a compliant version at the time of our review. Also, the need to upgrade software to a compliant version had not been enforced. As a result, Y2K problems may surface even if individual applications are remediated.

The Y2K compliant version of CICS is release 4.X. As of March 10, 1998, at least 50 of 215 IBSSC applications[5] were using a non-compliant version of CICS (release 2.1). In addition, 42 of the 50 applications were classified as "critical" by IBSSC personnel.

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[5] During our review, USPS personnel began corrective action to upgrade executive operating systems to CICS 4.X. However, the applications using CICS had not been recompiled.

Application remediation not effectively challenged

USPS operating officials did not effectively challenge the need to perform Y2K remediation on all existing applications. This occurred because Business Impact Assessments (BIA) had not been completed to allow officials to challenge the need for existing applications. As a result, resources (i.e. time and personnel) could be better spent remediating more critical applications.

Before applications are remediated, a business impact assessment (BIA) should be performed. At the time of our review the Y2K PMO and USPS officials started but had not completed the BIA process. During the BIA, applications are classified by operating officials as (1) severe, (2) critical, or (3) non-critical/important. The guiding principle that USPS officials should apply in making such a determination is to "challenge the need for each existing component or application." The USPS intends to remediate more than 600 severe, critical, and non-critical/important applications by December 1999 at an estimated cost of approximately $675 million.[6] These classifications were determined by cross functional team members, system program managers, and IBSSC representatives. Thirty-seven percent of the applications identified were classified as non-critical. We believe that it may not be cost effective to convert many of the non-critical systems.

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[6] According to the March 1, 1998 PMO Y2K inventory, there were 625 systems slated for remediation. Of these, 232 (37%) were classified as noncritical.

VALIDATION

Background

After code modification is performed during renovation, remediated applications should be thoroughly tested by operating officials to ensure that they are Y2K compliant and operate as they did before modifications. The USPS PMO has designed an additional check in the Y2K process called Post Implementation Verification (PIV) to supplement the validation phase. The PIV is an independent review of an application prior to its return to production. Due to the wide disbursement of applications and decentralized nature of the USPS, the PIV will be vital to ensure Y2K compliance.

Results

Systems not effectively tested for Y2K compliance

Systems that were in production or in acceptance testing were not always tested to ensure Y2K compliance. This occurred for the following reasons:

- Procedures were not adequately enforced to hold USPS managers and operations personnel accountable for application testing.
- IBSSC program managers stated that they were relying on the Y2K project office PIV team to perform system testing. However, it is the responsibility of operating officials to perform testing. The PIV is only a check to determine whether testing was completed.

As a result, some applications may not be Y2K compliant and may adversely affect the related USPS missions.

We reviewed 40 applications reported by the IBSSC program managers as "in production" or "in acceptance testing" per the March 1998 PMO system inventory. Our review disclosed that 10 (25%) of the applications had not been tested by program managers in accordance with the USPS Y2K Management Instruction AS-840-98-1. The PMO relies on the IBSSC program managers and portfolio mangers for accurate reporting of system status.

IMPLEMENTATION

Background

After non-compliant systems have been converted and tested, the implementation phase of a Y2K initiative begins. During the implementation phase, extensive integration and acceptance testing is required to ensure that all converted or replaced system applications and components perform adequately.

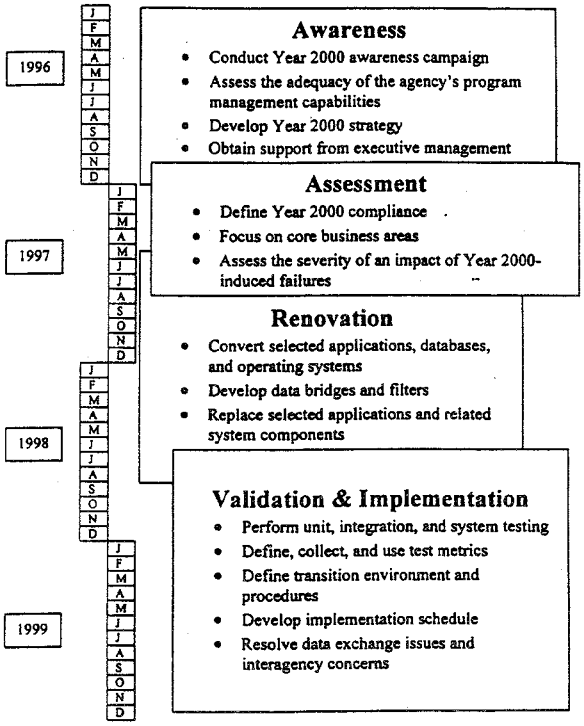
Results

Inaccurate Application Status Reporting

IBSSC personnel incorrectly reported that "in production" applications were Y2K compliant. This occurred because USPS Y2K compliance criteria and the PIV process had not been firmly established until many applications were reported as "in production." As a result, applications incorrectly reported as compliant may fail.

On March 2, 1998 PMO personnel reported to the Audit Committee (based on information received from IBSSC personnel) that approximately 96 USPS applications located at IBSSCs were in production and assumed to be compliant. However, based on our discussions with IBSSC representatives on March 9 and 10, 1998, 93 (97%) of those "in production" applications were not ready to be independently tested for Y2K compliance. Therefore, the status of applications in production and reported as compliant had not been validated.

Year 2000 Phases



Awareness

- Conduct Year 2000 awareness campaign
- Assess the adequacy of the agency's program management capabilities
- Develop Year 2000 strategy
- Obtain support from executive management

Assessment

- Define Year 2000 compliance
- Focus on core business areas
- Assess the severity of an impact of Year 2000-induced failures

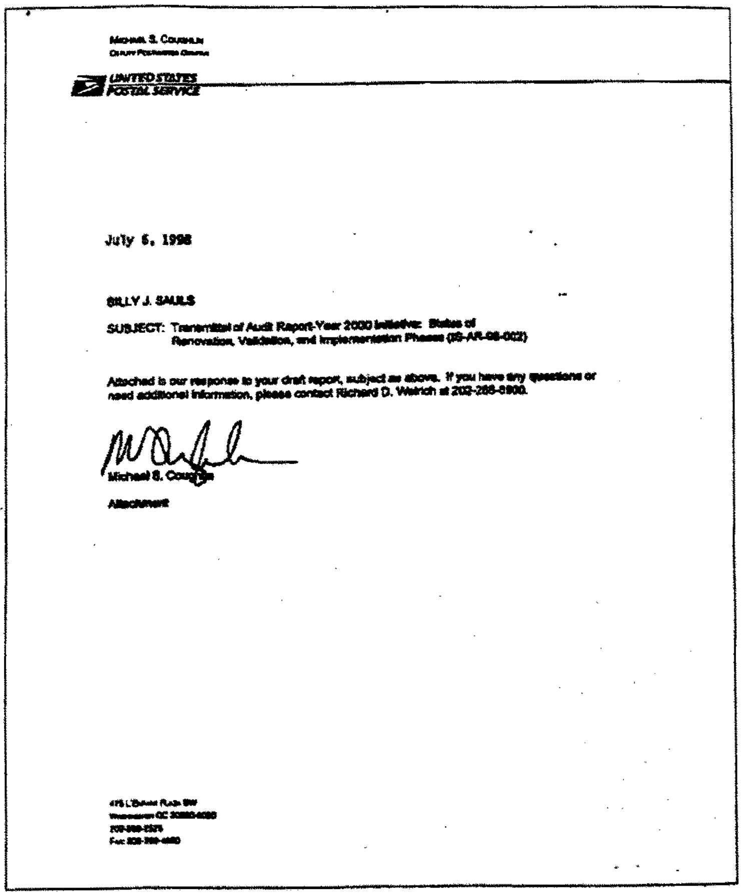
Renovation

- Convert selected applications, databases, and operating systems
- Develop data bridges and filters
- Replace selected applications and related system components

Validation & Implementation

- Perform unit, integration, and system testing
- Define, collect, and use test metrics
- Define transition environment and procedures
- Develop implementation schedule
- Resolve data exchange issues and interagency concerns

MANAGEMENT COMMENTS



Michael S. Coughlin
Deputy Postmaster General

UNITED STATES
POSTAL SERVICE

July 6, 1998

BILLY J. SAULS

SUBJECT: Transmittal of Audit Report-Year 2000 Initiative: Status of Renovation, Validation, and Implementation Phases (IS-AR-98-002)

Attached is our response to your draft report, subject as above. If you have any questions or need additional information, please contact Richard D. Weirich at 202-268-6900.

Michael S. Coughlin

Attachment

475 L'Enfant Plaza SW
[illegible]
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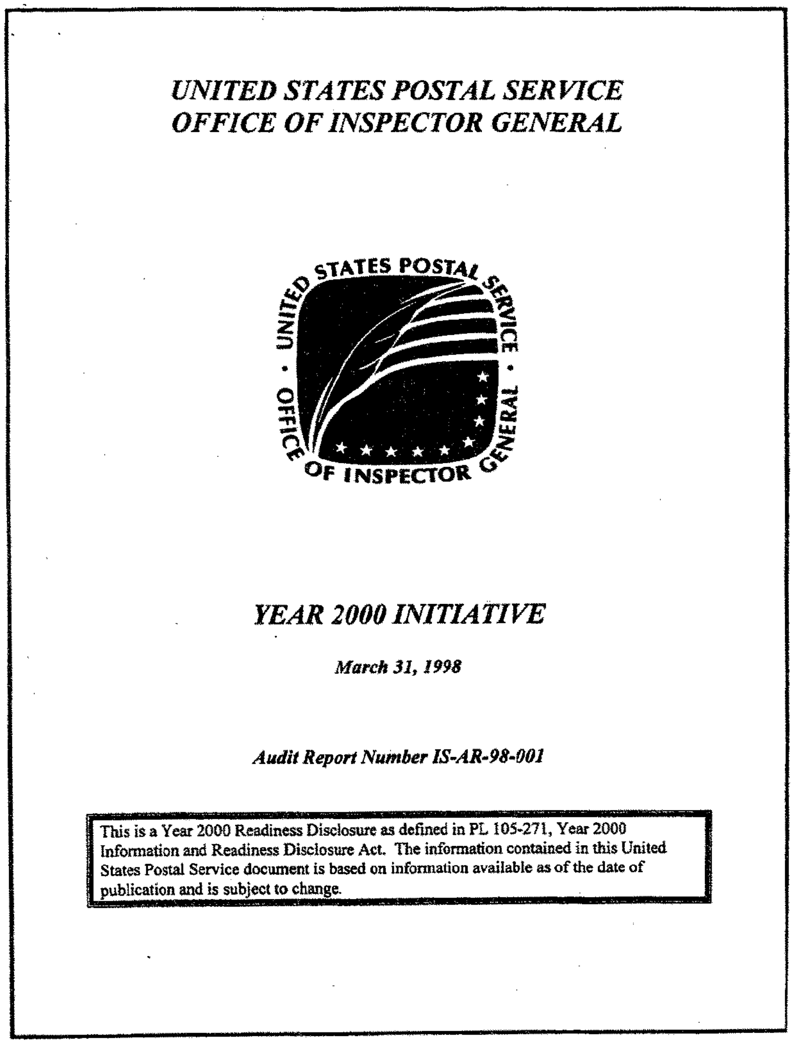

UNITED STATES POSTAL SERVICE
OFFICE OF INSPECTOR GENERAL

YEAR 2000 INITIATIVE

March 31, 1998

Audit Report Number IS-AR-98-001

This is a Year 2000 Readiness Disclosure as defined in PL 105-271, Year 2000 Information and Readiness Disclosure Act. The information contained in this United States Postal Service document is based on information available as of the date of publication and is subject to change.

KARLA W. CORCORAN
INSPECTOR GENERAL

March 31, 1998

MICHAEL S. COUGHLIN
Deputy Postmaster General

SUBJECT: Audit Report-Year 2000 Initiative (IS-AR-98-001)

This report presents the results of our review of the USPS Year 2000 (Y2K) Initiative. This report is the first in a series dealing with the Y2K initiative. During this review, we noted that the USPS did not have sufficient planning and corporate-wide involvement to allow for the most effective approach to solving the Y2K problem. Management agreed with our findings and recommendations. The corrective actions taken or planned are responsive to the issues raised in our report.

The cooperation and courtesies provided by your staff during the audit were appreciated.

Karla W. Corcoran
Karla W. Corcoran

Attachment

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USPS YEAR 2000 INITIATIVE

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EXECUTIVE SUMMARY

Results in Brief

The Year 2000 (Y2K) problem is rooted in the way dates are recorded and computed in many computer systems. For the past several decades, systems have typically used two digits to represent the year, such as "98" representing 1998, in order to conserve on electronic data storage and reduce operating costs. With this two digit date format, however, the year 2000 is indistinguishable from 1900, 2001 from 1901, and so on. As a result of this ambiguity, system or application programs that use dates to perform calculations, comparisons, or sorting may generate incorrect results when working with years after 1999.

The United States Postal Service (USPS) has begun to address the Y2K problem. However, as a result of not recognizing the scope of the problem in a timely manner, correcting the Y2K problem has grown more challenging for the USPS. The Y2K problem is not just an Information Systems (IS) concern but a USPS-wide challenge. However, USPS Vice Presidents (VP), outside of IS, have not been engaged or committed to solving the Y2K problem. If action is not taken, the USPS mission of providing quality, timely mail service may be impaired, prompting lost customers and lost revenue.

This report is the first in a series dealing with the Y2K problem. During our review, we noted that the USPS did not have sufficient planning and corporate-wide involvement to allow for the most effective approach to solving the Y2K problem.

During the time of our field work, the IS VP and Y2K manager recognized the need for greater program management skills to manage the USPS Y2K initiative. Therefore, in late December 1997, they hired a Y2K consultant with program management skills and Y2K experience to assist the USPS in meeting its Y2K challenge.

Recommendations

The Deputy Postmaster General should

Recommendation (1) assign VPs responsibility and accountability for ensuring that all systems in their area of management become Y2K compliant in time to prevent system failures;

Recommendation (2) develop and document a corporate-wide integrated plan;

Recommendation (3) conduct a complete corporate-wide system inventory including components, data/system interfaces, and third party products[1];

Recommendation (4) prioritize systems and components based on the business impact;

Recommendation (5) coordinate Y2K work with new system develop and design work to allow for continuity of operations into the next millennium;

Recommendation (6) develop, implement, and test contingency plans for the most critical systems as necessary[2];

Recommendation (7) record internal and external dependency links between entities, business processes, and information systems[3]; and

Recommendation (8) establish a realistic Y2K budget.

Evaluation of Management Comments

The Deputy Postmaster General concurred with all findings and recommendations included in this report and provided the following general statement: "*Significant progress has been made over the past several months to bring more business management focus and executive accountability, augment the Program Management Office (PMO) with world-class suppliers, and put more rigor into the policies and procedures. The response to specific recommendations will reflect the results of these activities. Even with this progress the Year 2000 Initiative is a most critical project for the Postal Service and will require continuous senior management engagement over the next two years.*" See Appendix II for comments on each recommendation.

Evaluation of Management Comments

Management's planned and completed actions are responsive to the issues raised in this report.

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[1] During our review, the Y2K project office personnel began developing a corporate-wide system inventory. To date they have identified approximately 600 systems.

[2] This can be accomplished at a later time for many systems, however, it should be accomplished well in advance of potential system failures.

[3] During our review, the Y2K project office personnel began recording internal and external dependency links between systems.

INTRODUCTION

The year 2000 (Y2K) problem results from the way in which computer systems store and process dates. In many systems, the year 2000 will be indistinguishable from 1900, thereby causing potential system failures. If left uncorrected, we believe the USPS could face critical computer system failures, which may hinder mail movement.

In light of the critical challenge facing the USPS, we were requested by the Deputy Postmaster General to review USPS actions to achieve year 2000 information systems compliance. Accordingly, this report discusses our assessment of the adequacy of steps taken by the USPS to ensure that computing problems related to Y2K are fully addressed.

Objective

Our overall objective was to determine whether the USPS was taking effective actions to achieve Y2K compliance.

Scope

In assessing the actions taken by USPS to address the Y2K problem, we reviewed numerous documents, including individual system summary and detailed plans, system inventories, test plans, and schedules. We also analyzed internal tracking reports developed by the USPS Y2K office to monitor the progress of Y2K activities.

We discussed USPS Y2K program activities with officials in various headquarters offices, including the Y2K project manager, the Information Systems (IS) Vice President (VP) and cross functional team members from Finance, Engineering, and Operations Support. We also met with management and staff at USPS Integrated Business Systems Solutions Centers (IBSSC) in San Mateo and Wilkes Barre.

Methodology

The General Accounting Office (GAO) is recognized by both the public and private sectors as a leader in evaluating Y2K management practices. According to the GAO Year 2000 Assessment Guide, most large organizations like the USPS do not have enough resources, expertise, or time to convert or replace all of their information systems. They must determine what systems are mission-critical and must be converted or replaced, what systems support important functions and should be converted or replaced, and what systems support marginal functions, and may be converted or replaced later. We used the GAO Year 2000 Assessment Guide in evaluating USPS readiness to achieve Y2K compliance.

We conducted our review from October 1997 through February 1998 and reviewed documentation processed through December 1997. As part of our review we used information from the corporate system repository and the Y2K system inventory. We performed a limited review of the information from these databases and found that the information was not totally reliable but was still usable for our purposes. This review was conducted in accordance with generally accepted government auditing standards.

Year 2000 Project Office Accomplishments

Background

The Y2K project office was established to address USPS computing problems related to Y2K. The project office was originally only concerned with IS systems. However, the focus soon changed to include all USPS systems. Therefore, the USPS selected a program manager in June 1997 to set up a Y2K project office and lead a Postal-wide Y2K initiative. The Y2K office recognized the need for additional involvement and requested each VP to appoint a representative to be part of a Y2K Cross Functional Team. The team member would act as a liaison between the project office and their VP area. Also, team members were responsible for developing organizational system inventories and helping ensure plans were developed to make each system Y2K compliant.

The Y2K project office has made progress since its inception. Some of the Y2K project office accomplishments include

- expanding the Y2K project office leadership from one senior manager to five executives;
- establishing line management accountability at the IBSSCs;
- improving the accuracy of Y2K data;
- establishing cross functional teams and holding several cross functional team meetings;
- providing Y2K awareness, and tools and techniques training classes to cross functional team members, program managers and business managers;
- increasing the number of suppliers eligible to bid on USPS Y2K projects from 5 to 14;
- developing a systems inventory and expanding it from approximately 300 to 600; and
- awarding a contract to meet the need for rigor and professional drivers within the Y2K initiative.

AWARENESS

Background

According to the GAO Y2K Assessment Guide, it is essential that executive management be fully aware of the Y2K problem and its potential impact on the organization and its customers. It is the responsibility of the IS VP to provide the leadership in defining and explaining the importance of achieving Y2K compliance, selecting the overall approach for structuring the agency's Y2K program, assessing the adequacy of the existing information resource management infrastructure to adequately support the Y2K efforts, and mobilizing needed resources. Three of the key processes in the awareness phase of the Y2K challenge include:

- accurately assessing the size of the Y2K challenge,
- obtaining involvement from all organizational areas, and
- developing a corporate-wide integrated plan to address the Y2K initiative.

Results

Y2K challenge not accurately assessed

The USPS did not accurately assess the size of the Y2K challenge in time to allow for the most effective approach. The lack of an accurate assessment, and of standard system development and program management practices, have lead to ineffective management and coordination of Y2K program activities. In accordance with the GAO Y2K Assessment Guide, we believe the USPS is at least a year behind schedule of a successful Y2K conversion. Consequently, we believe the USPS will not reach its Y2K goal of having all systems implemented as of September 12, 1998.

Involvement not obtained from all organizational areas

The USPS did not hold VPs (outside of IS) accountable to make all systems in their area of management Y2K compliant which may result in system failures. Although many organizational areas were asked to provide input to the Y2K project office, VPs outside of IS were not committed or engaged to solving the Y2K problem and were not held accountable for the results. We believe this occurred because senior management and other officers considered the Y2K problem as an IS concern. Involving VPs from all organizational areas will help to prevent Y2K induced system failures.

Corporate-wide

Many of the IBSSCs and cross functional team members were

integrated plan not developed and documented	working on their own Y2K plans. However, the USPS did not develop a corporate-wide integrated plan. A corporate-wide integrated plan would have provided the Y2K project office with direction that focused on executive management's greatest concerns and a guide to accomplish the Y2K goal. This occurred because executive management did not address the Y2K initiative as a USPS wide problem but considered it an IS concern. Without a corporate-wide integrated plan to follow, the USPS may not use resources efficiently, may not focus on the most critical processes, and may fail to reach its Y2K goal.

ASSESSMENT

Background

According to the GAO Y2K Assessment Guide, the Y2K problem is not just an information technology problem, but is a business and project management problem. To successfully complete a project like the Y2K challenge, an organization needs to implement disciplined project management practices. Therefore, the process of identifying and ranking information systems should not be limited to an inventory of applications and platforms, but must include a business impact assessment. Key processes within the assessment phase of the Y2K initiative include:

- conducting a corporate-wide inventory of information systems,
- prioritizing systems and components to be converted or replaced,
- addressing interface and data exchange issues,
- developing contingency plans for mission-critical systems, and
- establishing a Y2K budget.

Results

Incomplete corporate-wide system inventory

The Y2K Project Office conducted its corporate-wide system inventory by relying on the IBSSCs, cross functional team members, and the corporate system index. However, the information in the system portfolio was inaccurate and incomplete. For example, internal and external interfaces were not always identified incomplete, and the availability and adequacy of source code and associated documentation items were missing from the inventory for all systems.

The December 30, 1997, system inventory listing did not contain the data element documenting lines of code for 29 of 63 (46%) systems that were identified as critical to mail movement. In addition, some information systems were not included in the inventory, and system ownership was not always clearly defined[4]. This condition occurred for the following reasons:

- The Y2K Project Office did not request the IBSSCs or cross functional teams to provide internal and external interfaces or availability and adequacy of source code and associated documentation.

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[4] There were three systems that were identified as having management responsibility at the San Mateo IBSSC. However, the program manager at San Mateo stated that the management responsibility was being shifted to the Wilkes Barre IBSSC. The Wilkes Barre IBSSC program managers did not agree.

- Program managers located at IBSSCs were not initially directed to provide lines of code for all systems including systems in production.

A complete and accurate corporate-wide inventory is vital to Y2K resource planning and developing an effective Y2K program.

Systems and components not prioritized

System program managers were given the responsibility of identifying a system's criticality. In October 1997, cross functional team members were requested to verify the criticality rating of systems in their organization. However, Y2K project office personnel have not prioritized systems overall or within the criticality groups. For example:

- A system not prioritized within the Critical to Mail Movement (CMM) group was the Automated Workforce Projection System. This system is still being designed. It will be used as a planning and guidance tool. However, it is listed above the Permit System. The Permit System is fully operational and depended upon to support six subsystems, including a system to control advance deposit trust fund deposits, withdrawals and daily balances for each permit account.

- Systems still being planned, designed, and developed were commingled in the inventory with operational systems supporting current functions. Based on a review of the CMM systems inventory as of December 30, 1997, 18 of 63 (29%) systems were in planning or development.

- As of December 30, 1997, there were 63 systems labeled as CMM, 79 as Critical to External Customer, and 269 as Critical to Internal Customer. Personnel from the Y2K project office stated that all 411 critically labeled systems must be ready for post implementation verification by September 1998. Consequently, 411 of over 600 identified systems were labeled critical negating the benefit of labeling a system critical for special attention.

- Critical systems were labeled not critical. For example, the Delivery Confirmation System[5] was listed as "Not Critical". However, the Y2K project office personnel stated that this system should probably be identified as critical to external customers. The reason some critical systems were not identified was because system users did not establish the systems' criticality rating. Also, cross functional members did not review the criticality rating of the systems in their organization as requested by the Y2K project office. Finally, one system program manager stated that he identified a critical system as "Not Critical" because he did not want it to receive the focus associated with a critical system.

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[5] This system allows the USPS and its customers to know the location of a piece of mail close to real time in order to be able to provide an accurate forecast of its arrival at its final destination.

- Even though the IS VP directed IBSSC managers to give priority to Y2K work, systems development work was still given priority over Y2K work by program managers. One business system manager at the San Mateo IBSSC stated that as of November 1997, clear direction was not provided to place Y2K work above other work. The business system manager further stated that they were directed to perform Y2K related tasks only as a part of normal systems maintenance or along with new systems development. The IBSSC personnel were not directed to make a special effort to perform Y2K related tasks if the tasks hindered service to the organization their system supported.

Properly prioritizing systems directly related to mail movement could prevent system failure and disrupt mail delivery. Also, prioritizing systems allows management to identify and mobilize resources where needed.

Contingency plans not developed

USPS personnel have not developed, implemented, and tested contingency plans for the most critical systems. This could be accomplished at a later time for many systems. However, it should be accomplished well in advance of potential system failures. During our review, the Y2K office could not provide a listing of critical systems with contingency plans in place. Without contingency plans in place, the USPS may feel the full affect of Y2K system failures and mail delivery could be adversely affected.

Interface and data exchange issues not addressed

Interface and data exchange issues have been discussed at Y2K cross functional team meetings and meetings with IBSSC personnel. However, interface and data exchange issues have not been adequately addressed.[6] Specifically, a development model showing internal and external dependency links between information systems has not been established. System interface and data exchange information available in the Y2K office was incomplete. However, IS personnel frequently discussed system interfaces and data exchange issues. If system interface and data exchange areas are not addressed, the systems may not function effectively and could adversely affect mail delivery.

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[6] During our review, the Y2K project office personnel began recording internal and external dependency links between systems.

Resource expenditure and availability not assessed

The USPS personnel did not establish a realistic Y2K budget. For example, the $85 million Y2K budget for FY 1998 through FY 2000 was based only on IS systems and not all USPS systems. As stated above, business processes were not addressed, a complete accurate inventory was not established, and an accurate estimate for lines of code was not available. Therefore, at the time of our review, a budget for Y2K costs could not be accurately determined.

BACKGROUND INFORMATION

Y2K Conversion Phases

Five phases are widely accepted by federal and private entities for completing a Y2K conversion.[7] Our review covered the first two phases awareness and assessment. The five phases include:

- awareness,
- assessment,
- renovation,
- validation, and
- implementation.

The USPS Y2K Project Office has established six phases and changed some of the phase names. However, the criteria are essentially the same. The USPS Y2K phases are:

- assessment,
- solution design,
- code modification,
- acceptance testing,
- implementation, and
- post implementation verification.

The USPS assessment phase also includes tasks that would be defined as awareness phase tasks by GAO. The following discusses some critical steps in the phases we reviewed.

Program Management

At the beginning of a Y2K project, organizations should assess the adequacy of their program management capabilities. Successfully meeting the Y2K challenge depends on the degree to which an organization has institutionalized key system development and program management practices and on its experience in managing large-scale software conversion or system development efforts. Organizations that have not adopted standard system development and program management practices lack the basic policies, tools, and practices necessary to successfully manage a large-scale Y2K program.

Corporate-wide Integrated Plan

Early in the awareness phase of the Y2K project, organizations should develop and document a high-level Y2K corporate-wide integrated plan. This would provide executive management with a roadmap for achieving Y2K compliance. The plan should discuss key Y2K issues, including the program's management structure, program metrics and reporting requirements, and the mix of organization-wide solutions.

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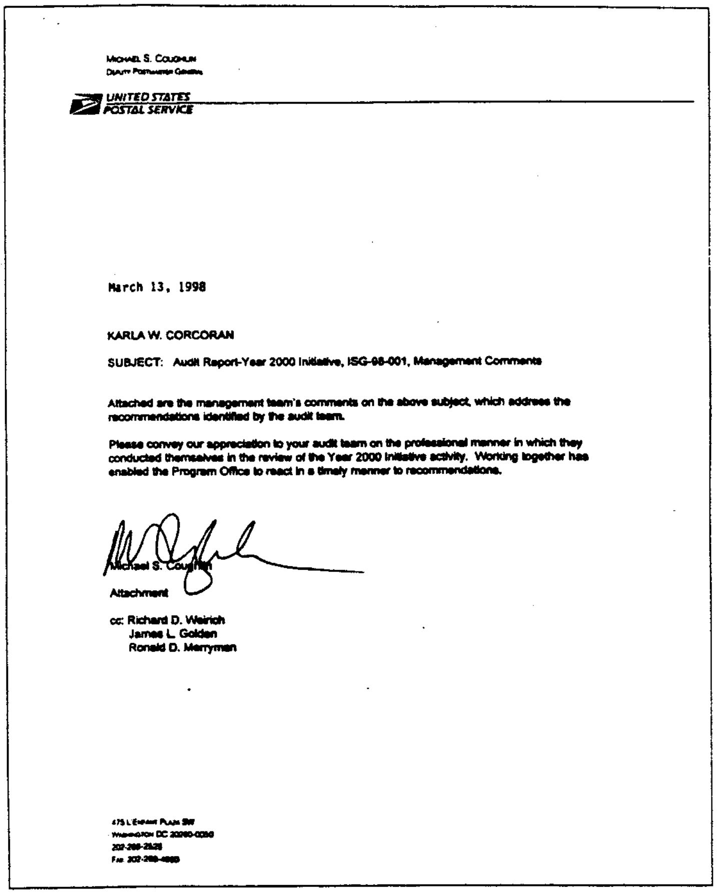
[7] According to the GAO Y2K Assessment Guide.

Corporate-wide System Inventory	A corporate-wide inventory of information systems and their components provides the necessary foundation for Y2K program planning. A thorough inventory ensures that all systems are identified and linked to a specific business process, and all corporate-wide systems are considered. The inventory data should be used to develop a comprehensive automated system portfolio and identify key information for each system. One of the more important elements that should be identified is the lines of code that make up the operating and applications areas of systems. The lines of code are used to scope the work involved and establish a budget for projects. Another important inventory data element is the systems internal and external interfaces. A system may not be critical by itself. However, it may interface and provide data to a critical system. Other items that should be included in an automated system inventory include: • links to business areas or processes, • platforms, languages, and database management systems, • operating system software and utilities, • telecommunications, • owners, and • the availability and adequacy of source code and associated documentation.
Systems Prioritization	An organization must determine priorities for system conversion and replacement by ranking the systems based on key factors, such as business impact and the anticipated failure date. An organization also needs to identify applications, databases, archives, and interfaces that cannot be converted because of resource and time constraints. Managers should make informed choices about information technology priorities within their organization by assessing the costs, benefits, and risks of competing projects. In some instances, managers may have to defer or cancel new system development efforts and reprogram the freed resources to achieve Y2K compliance.

Contingency Plans	To ensure the continuity of business processes, organizations must initiate the development of realistic contingency plans. Manual and contract procedures should be included in the plan development. Contingency plans map out what to do in the event a system is unable to function. Contingency plans address data dependencies, such as what to do if erroneous data are received or if no data are received. In some cases commercial off the shelf software should be considered. In other cases, an organization may need to resort to manual processes.
Interface and Data Exchange Issues	For systems to be Y2K compliant, they must be able to interface correctly with all associated systems. Therefore, the following interface and data exchange issues should be addressed: • The development of a model showing the internal and external dependency links between organizations, business areas, processes, and information systems; • The notification of all outside data exchange entities; and • The need for data bridges and filters.
Resource Expenditure	The two vital resources applicable to the Y2K initiative are money and people. It is appropriate to evaluate needed and available resources during the early stages of the Y2K project. Organizations should establish a budget with regards to money and personnel.

MANAGEMENT COMMENTS



MICHAEL S. COUGHLIN
DEPUTY POSTMASTER GENERAL

UNITED STATES
POSTAL SERVICE

March 13, 1998

KARLA W. CORCORAN

SUBJECT: Audit Report-Year 2000 Initiative, ISG-98-001, Management Comments

Attached are the management team's comments on the above subject, which address the recommendations identified by the audit team.

Please convey our appreciation to your audit team on the professional manner in which they conducted themselves in the review of the Year 2000 Initiative activity. Working together has enabled the Program Office to react in a timely manner to recommendations.

Michael S. Coughlin

Attachment

cc: Richard D. Weirich
James L. Golden
Ronald D. Merryman

475 L'Enfant Plaza SW
Washington DC 20260-0050

U.S. Postal Service Year 2000 Initiative, ISG-98-001

Management Comments

General Comments: *Significant progress has been made over the past several months to bring more business management focus and executive accountability, augment the Program Management Office (PMO) with world-class suppliers, and put more rigor into the policies and procedures. The response to specific recommendations will reflect the results of these activities. Even with this progress the Year 2000 Initiative is a most critical project for the Postal Service and will require continuous senior management engagement over the next two years.*

Issue 1: Y2K challenge not accurately assessed.

No recommendation was necessary; management was already taking corrective action.

Issue 2: Involvement not obtained from all organizational areas.

The Deputy Postmaster General should:

Recommendation (1): assign VPs responsibility and accountability for ensuring that all systems in their area of management become Y2K compliant in time to prevent system failures.

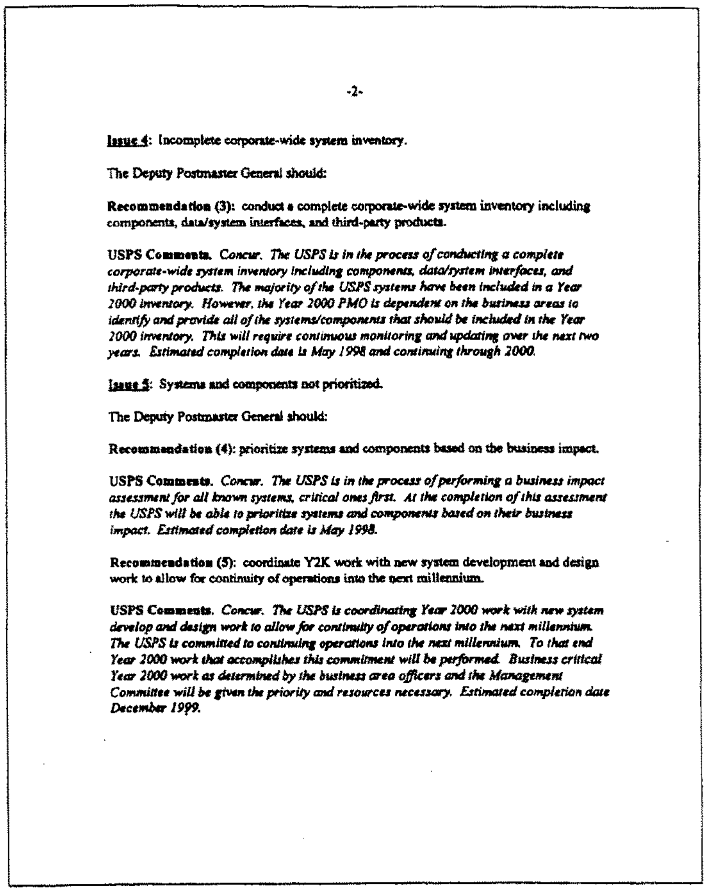
USPS Comments. *Concur. The USPS has already begun corrective action by requiring VPs and line managers to sign statements accepting responsibility for systems in their business area. The USPS will continue to assign VPs responsibility and accountability for ensuring that business critical systems in their area of management become Y2K compliant in time to prevent system failures. Estimated completion date is May 1998.*

Issue 3: Corporate-wide integrated plan not developed and documented.

The Deputy Postmaster General should:

Recommendation (2): develop and document a corporate-wide integrated plan

USPS Comments. *Concur. The USPS will develop and document a corporate-wide integrated plan. The USPS has already initiated corrective action in this area. The USPS, in coordination with business area executives and the augmented Year 2000 PMO, is performing a Postal Service-wide business impact assessment. Estimated completion date is May 1998.*



__Issue 4__: Incomplete corporate-wide system inventory.

The Deputy Postmaster General should:

Recommendation (3): conduct a complete corporate-wide system inventory including components, data/system interfaces, and third-party products.

USPS Comments. *Concur. The USPS is in the process of conducting a complete corporate-wide system inventory including components, data/system interfaces, and third-party products. The majority of the USPS systems have been included in a Year 2000 inventory. However, the Year 2000 PMO is dependent on the business areas to identify and provide all of the systems/components that should be included in the Year 2000 inventory. This will require continuous monitoring and updating over the next two years. Estimated completion date is May 1998 and continuing through 2000.*

__Issue 5__: Systems and components not prioritized.

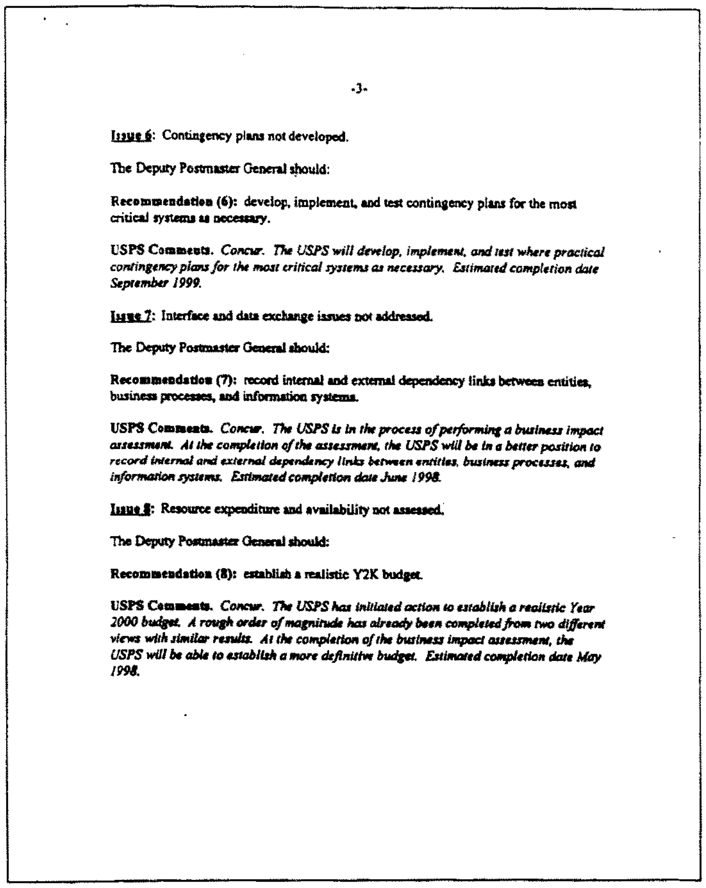
The Deputy Postmaster General should:

Recommendation (4): prioritize systems and components based on the business impact.

USPS Comments. *Concur. The USPS is in the process of performing a business impact assessment for all known systems, critical ones first. At the completion of this assessment the USPS will be able to prioritize systems and components based on their business impact. Estimated completion date is May 1998.*

Recommendation (5): coordinate Y2K work with new system development and design work to allow for continuity of operations into the next millennium.

USPS Comments. *Concur. The USPS is coordinating Year 2000 work with new system develop and design work to allow for continuity of operations into the next millennium. The USPS is committed to continuing operations into the next millennium. To that end Year 2000 work that accomplishes this commitment will be performed. Business critical Year 2000 work as determined by the business area officers and the Management Committee will be given the priority and resources necessary. Estimated completion date December 1999.*



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Issue 6: Contingency plans not developed.

The Deputy Postmaster General should:

Recommendation (6): develop, implement, and test contingency plans for the most critical systems as necessary.

USPS Comments. *Concur. The USPS will develop, implement, and test where practical contingency plans for the most critical systems as necessary. Estimated completion date September 1999.*

Issue 7: Interface and data exchange issues not addressed.

The Deputy Postmaster General should:

Recommendation (7): record internal and external dependency links between entities, business processes, and information systems.

USPS Comments. *Concur. The USPS is in the process of performing a business impact assessment. At the completion of the assessment, the USPS will be in a better position to record internal and external dependency links between entities, business processes, and information systems. Estimated completion date June 1998.*

Issue 8: Resource expenditure and availability not assessed.

The Deputy Postmaster General should:

Recommendation (8): establish a realistic Y2K budget.

USPS Comments. *Concur. The USPS has initiated action to establish a realistic Year 2000 budget. A rough order of magnitude has already been completed from two different views with similar results. At the completion of the business impact assessment, the USPS will be able to establish a more definitive budget. Estimated completion date May 1998.*

Major Contributors to This Report Were:

Tracy LaPoint
Randy Coneby
Carmilla Satterwhite

Answers to Questions from the Minority
Subcommittee on the Postal Service
Karla W. Corcoran, Inspector General, United States Postal Service
Regarding February 23, 1999, Y2K Testimony

1. *In your testimony you state that in 1997, the Postal Service finally recognized the scope and complexity of the Y2K problem and hired contractors to assist in managing and correcting the problem. How many contractors have been hired and at what cost? What areas are they overseeing or managing? How high could total costs for contractors go? Does the Postal Service measure the quality of contractor [Year 2000] Y2K work? If so, how is it measured? If not, why not?*

   As of January 1999, the Postal Service had hired 13 firms comprising approximately 1,300 contract personnel. The contractors are assisting with program management, assessing and remediating code, providing integration support, and performing independent verification. Due to the uncertainties involved in the Y2K Initiative, the total cost for contractor labor cannot be estimated, but the Postal Service had spent $162 million for contractor labor as of March 26, 1999. The Postal Service's initial 1998 budget estimate for the entire Y2K Initiative was between $500-$670 million.

   The Postal Service has implemented an independent verification process to ensure that Postal Service systems will be reviewed and corrected to ensure Y2K compliance. Their independent verification process examines computer systems and applications to ensure that Y2K corrective actions have been implemented and that the systems and applications are Y2K compliant. In a September 1998 Y2K report, we focused on this quality control process. We noted that while Postal Service management had implemented quality control for the Y2K Initiative, we questioned whether the Postal Service should verify 100 percent of the programming code for all the critical systems. To ensure that all these systems would be verified by the year 2000, we recommended the Postal Service use statistical sampling techniques to streamline the independent verification process. The Postal Service agreed with our report findings and recommendations and initiated corrective actions.

2. *Your full testimony indicated that you have on-going work regarding the Postal Service's Fiscal Year (FY) 1999 Y2K budget and that you expect to release your report in the upcoming weeks. Please expand on the concerns you have raised?*

In March 1999, we issued a draft management advisory report to Postal Service management, "Year 2000 Initiative: Review of Administration." We reissued a revised draft report in May 1999. This review, undertaken at the request of the Postal Service's Vice President, Controller, examined the opportunities to save resources associated with the Y2K Initiative.

The draft report identified a number of ways to improve oversight of the Y2K program. Specifically, we noted that:

- adequate controls were not always in place to monitor contractor activities;
- information had not always been provided to Integrated Business Systems Solutions Center personnel to help in controlling Y2K resources (Integrated Business Systems Solutions Centers are responsible for the development, design and implementation of all Postal Service computer applications);
- work products provided by contractor personnel were not always timely or adequate;
- the numbers or expertise of contractor personnel assigned at various site locations did not always correspond to the amount of work needed, and additionally, the layers of contractor managers were unnecessary in certain instances;
- security clearances were not provided in a timely manner to contractor personnel; and
- a Y2K contractor was permitted to deviate from Postal Service travel regulations.

We offered Postal Service management eight suggestions to address these concerns and provide opportunities to save resources and enhance contractor oversight. These suggestions included:

1. Improving contracts management by:
    - including Integrated Business Systems Solutions Center management in contractor-monitoring duties for Y2K projects;

- providing Postal Service monitoring of all contractor activities, both at Postal Service and non-Postal Service facilities (when practicable); and,
- ensuring that Postal Service personnel responsible for Y2K projects continue to evaluate the reasonableness of contractor employee time charges entered into the Postal Service's Program Cost Tracking System.

2. Analyzing all post-certification Y2K tasks to ensure that they are necessary.

3. Identifying and obtaining reimbursement for rework costs caused solely by contractor actions, if permitted under current contract language, and ensuring that future contracts include such language.

4. Improving communication and contractor utilization by:

    - allowing Integrated Business Systems Solutions Center management to coordinate the timing and number of contractors assigned prior to contractor start dates;
    - re-evaluating Y2K resource requirements periodically, based on individual accomplishments and critical completion dates; and,
    - continuing review of contractors' staffing at each site and implementing a process to terminate excess resources.

5. Analyzing the process for granting security clearances to contractor personnel to ensure that security clearances are granted in a timely manner.

6. Ensuring that contractor personnel are performing productive work while awaiting a security clearance and disallowing contractor payments for employees without a required security clearance.

7. Requiring contractors to follow Postal Service travel policy.

8. Monitoring of the Y2K budget by the Vice President, Controller, to ensure that funding is sufficient and properly allocated among the various Y2K areas.

Postal Service management agreed with the findings and has implemented corrective action. We are in the process of finalizing the report and will provide the Subcommittee with a copy upon release.

3. *You have warned us that the Postal Service may not be totally Y2K compliant by the Year 2000. What in your estimation is likely to be left undone or uncompleted, and how could mail delivery be impacted? Will the Postal Service be able to deliver mail at today's level of services?*

At this phase in the project, there are still too many variables to make a determination as to what may be left undone or incomplete. Postal Service senior managers testified that they could not guarantee that the Y2K transition would be free of problems. Based upon our work, we believe the areas that could be left incomplete would be those in which the Postal Service started corrective action late or in which there are budget shortfalls. For instance, the reliability of external suppliers and facilities is a critical area that may not be ready by the Year 2000 because corrective actions started late and are still in the inventory and assessment phases. Additionally, the number of applications scheduled to undergo "simulation" testing have been significantly reduced because of budget and time constraints—thus information systems and interface testing to ensure Y2K readiness may not be as comprehensive as originally planned. Any setbacks in these areas of Y2K readiness have the potential to impact the delivery of mail. In addition, as of April 1999, the Postal Service had a long way to go in establishing a comprehensive, viable business continuity plan.

The Postal Service approach is to make sure that its critical business processes work on and after the Year 2000. Critical processes include the movement of the mail, the collection of revenue, the payment of employees and bills, and the safety and security of customers and employees. Since the Subcommittee's hearing, the Postal Service has conducted a follow-on test to its original mail processing equipment test at the Processing and Distribution Center in Tampa, Florida. While some minor Y2K problems were found, for the most part the plant's mail processing equipment with dates rolled forward into Year 2000 successfully sorted and processed mail. However, the significant challenges I outlined in my testimony remain, and I do not have enough information to speculate on the level of mail delivery service on or beyond January 1, 2000. We will prepare periodic status reports showing Y2K progress and will continue to monitor the project and make recommendations as necessary.

4. *Explain how other agencies and corporations might need to use the Postal Service in the event of serious disruptions in their respective areas?*

As I noted in my testimony, government and private sector organizations may rely on the Postal Service as an alternative means of conducting electronic payments and data transmissions. According to the General Accounting Office, the Postal Service is part of many organizations' Y2K contingency plans if electronic communications are disrupted.

The magnitude of such transactions is significant. Federal agencies depend on electronic funds transfer to deliver benefit payments and to pay contractors, grantees, and employees. For example, an average of 30 million social security, 3 million supplemental security income, and 2 million veterans' benefit payments are transferred electronically each month by the Department of the Treasury. Federal agencies also rely on electronic data to make eligibility determinations for veterans', social security, and Medicare benefits, and to develop performance indicators. Additionally, government and private sector organizations use electronic data exchanges extensively to transfer information between computer systems. One important example of this is the electronic transmission of wage data by most businesses to the Internal Revenue Service, Social Security Administration, and state unemployment agencies.

In the event of major catastrophes, the Postal Service is also expected to fulfill a vital role in support of the coordinated Federal Emergency Management Agency's response and recovery effort. If Y2K-induced failures restrict the nation's supply of electric power, air and ground transportation, and fuel, the Postal Service role would be to provide transportation for life-supporting and life-protecting purposes. The Postal Service would also be relied upon to collect and distribute information about the location of survivors and evacuees.

5. *Who has liability insurance coverage for Y2K and is the IG included in such coverage?*

The Postal Service has purchased personal liability insurance policies for the Governors and officers that would provide some coverage in those situations, including Y2K, where a Governor or officer is sued in his or her personal capacity. For reasons unrelated to Y2K, I chose not to participate in this particular policy and instead purchased a personal liability policy available to all federal employees. This policy would provide me with coverage were I to be sued in my personal capacity in a Y2K matter.

Postal Service senior managers have advised us that the Postal Service has not purchased separate Y2K insurance for its officers and employees in the event they are sued for acts in their official capacity. According to the Postal Service Law Department, the Federal Tort Claims Act provides coverage for any officer or employee who is deemed to be acting within the scope of employment. Upon a determination that an employee was acting within the scope of employment, the individual employee is removed as a defendant in a lawsuit and the United States is substituted as the defendant, thereby relieving the individual employee of potential liability.

6. *How do you define "critical mission" and "core business functions" to lay persons? If these areas are not Y2K compliant, what is the impact?*

"Mission critical" is generally defined by the Postal Service as a system or process supporting a core business function. A "core business function" is a group of logically related tasks that are performed together to accomplish a mission-oriented objective. Mission critical processes for the Postal Service include only those that directly affect its core business functions of collecting revenue, paying bills or employees, moving the mail, and ensuring the safety and security of customers and employees. The Postal Service cannot afford to have mission critical business functions out-of-service because of Y2K disruptions.

The Postal Service has developed Year 2000 disruption scenarios to determine how mission critical business functions could be affected, including disruptions from its external suppliers. According to these scenarios, the impacts on business operations range from low to high depending upon the number and severity of failures in any core business activity. For example, disruptions at a single local bank are unlikely to have significant impacts on the Postal Service's financial transactions due to the large number of alternative banks available within a short distance. However, failure of one of the major banking networks on a regional basis could have a significant impact. Similarly, the impact of equipment failures on the ability to move the mail will be contingent on whether the failures are widespread or limited in scope. Another determining factor will be the effectiveness of the Postal Service business continuity strategy for each core business function. These strategies are scheduled for completion in July 1999. Although business continuity plans are not complete, the Postal Service management is confident it can resume business operations in the event of Y2K failures. Historically, the Postal Service has operated successfully through national and regional disruptions as well as natural disasters.

7. *Tell me more about "external suppliers." Who are they and what is their role or position in the Y2K debate? What role do they play in contingency plans? Has the Postal Service taken any measures to certify whether their suppliers are or will be Y2K compliant?*

External suppliers are private companies and businesses that provide supplies and services to assist the Postal Service in carrying out its business processes and delivering the mail. They include air, rail, truck, telecommunications companies, financial services, etc., which provide mail transportation, telecommunications equipment, and other products and services. Prior to February 1999, the Postal Service had classified approximately 8,000 of its suppliers as critical. That number has since been reduced to approximately 1,764. The Postal Service review of the supplier list disclosed a number of duplicate entries and suppliers that were not viewed as critical to the Postal Service.

My testimony indicated that the Postal Service recently started its business continuity and contingency planning process. Continuity planning addresses the impact of external systems and suppliers on "mission critical" business processes, while contingency planning looks only at internal component failures. The Postal Service has sent each of its critical suppliers a Y2K compliance questionnaire and is assessing the responses against key criteria to rate suppliers' Y2K readiness. The Postal Service has not, however, identified the role suppliers will have in the development of business continuity plans.

The Postal Service has several options to ensure it can conduct business as usual after January 1, 2000. The first choice would be to have its critical suppliers Y2K ready. For those suppliers who Postal Service officials determine are not Y2k ready or do not respond to the questionnaire, "workarounds" will need to be developed and tested to ensure that business operations are not disrupted. If workarounds are not viable, the Postal Service must identify Y2K compliant alternative suppliers ready and willing to step in as needed. To date, no field managers have requested replacement of critical suppliers.

Certification of supplier readiness is one of the biggest challenges because the Postal Service has no control over suppliers' Y2K readiness. However, the Postal Service has developed a process to certify (through on-site visits) the readiness assessment of its critical suppliers who could have the greatest impact on postal operations.

8. *What is the status of your efforts to make your office Y2K compliant?*

The Office of Inspector General relies upon four critical internal core business systems to accomplish our mission. Our telecommunications and hotline systems are already Y2K compliant. Our computer network and individual computer systems will be compliant by July 30, 1999.

We also rely upon a number of critical Postal Service systems, including human resources, finance, and facilities management. We are developing and coordinating with the Postal Service on contingency plans for these systems. We are also developing our business continuity plan to ensure we are able to function at a minimal level should Y2K disruptions occur. Our continuity plan will be completed by July 30, 1999.

9. *In your report released last week, you essentially found that the quality and reliability of Y2K information released by the Program Management Office were neither. How big a problem is the integrity of Postal Service Y2K data? How can the Board of Governors and others know the true picture relative to Postal Service Y2K activities?*

We noted that collecting and assessing data for Y2K has been a major challenge and massive undertaking for the Postal Service. In some Y2K areas the Postal Service is still inventorying, assessing, and refining Y2K data—making it impossible to estimate the scope of the data integrity challenge. For example, the Postal Service reported in January 1999 that there were at least 4,327 data exchanges between systems. Since then, the Postal Service has refined the data exchanges' baseline and is currently reporting the total number of exchanges as 2,347. It attributed the decrease in the data exchange baseline to double and triple counting the same exchanges. In another case, as already mentioned in our answer to Question 7, the Postal Service reported almost 8,000 critical suppliers as of January 1999. After a closer review and validation the number dropped to about 1,764--almost a 78 percent reduction. Again, the Postal Service attributed the decrease to double counting and non-critical suppliers included in the initial count.

The Postal Service's Program Management Office set up a quality assurance function—called post-implementation verification—to verify that its mission critical information systems and mail processing equipment would be Y2K ready. However, it had not established a quality assurance group to verify the accuracy of Y2K data collected from field locations. The Program Management Office has gone on record that it relies on its field offices to report reliable, accurate data regarding their Y2K accomplishments. In retrospect, those who use and depend on these numbers to be accurate may have been better served with regard to the reliability of the data had the Program Management Office established such a quality assurance group.

Our February 1999 report contained recommendations that the Postal Service implement to improve its procedures for reporting on Y2K progress. The focus of that report was full disclosure, regardless of the state of readiness. We also recommended the Postal Service adopt a single page status report detailing progress in all Y2K areas to date. In addition, the Board of Governors continues to emphasize the importance of Y2K at its monthly Board meetings and has required Y2K updates from postal management at each meeting. We are currently in the process of developing a scheduled follow up to the February status report. Included in this report will be a determination of the Postal Service's progress in implementing our previous reporting recommendations. We will forward a copy of the report to the Subcommittee when it is finalized.

10. Please describe in detail, the work that your office has or plans to conduct to ensure that foreign nation contract employees have:

- *a. Had proper and timely security background checks?*
- *b. Not been granted access to critical or sensitive information?*
- *c. Been provided proper oversight by the Postal Service personnel to ensure that they do not have access to critical or sensitive information or systems?*

Any changes needed in this area? Please explain.

Foreign national contract personnel are granted access to critical or sensitive information on a need-to-know basis after completing a security screening and receiving a sensitive clearance by the Inspection Service. Postal Service managers and key personnel are responsible for controlling and monitoring contractor access to critical and sensitive information.

As mentioned earlier, in May 1999, we issued a draft management advisory report on Y2K Administration to Postal Service management. In the draft report, we highlighted concerns with the timeliness of security background checks for Y2K contractor employees. However, we did not identify any specific concerns related to foreign national contract employees. The draft report identified a number of suggestions to improve oversight of the Y2K program. Postal Service management agreed and has implemented corrective action on all suggestions. We are finalizing the report and will provide a copy to the Subcommittee.

The Office of Inspector General also conducts annual information systems audits at the Minneapolis, San Mateo, and St. Louis Information Service Centers to determine if the general controls over computer based systems provide reasonable assurance that computer processed data is accurate, complete, and secure. This work includes an examination of a sample of security background checks and access to critical or sensitive information by both Postal Service and contract personnel.

As previously stated, we identified suggestions to improve security background checks for Y2K employees, but did not identify specific security concerns related to foreign nation contract employees. Future work in this area by the Office of Inspector General will address security issues involving foreign national employees.

Mr. McHugh. Thank you very much, Ms. Corcoran. We appreciate your comments and observations.

As we had decided earlier, and as your presence all at the same table at the same time suggests, our plan is to go forward and to have all three presentations and then return for the questions and answers.

So, in keeping with that, hearing no outcry of outrage—[laughter]—I would now be pleased to recognize Mr. Jack Brock, who serves as Director of the General Accounting Office's Governmentwide and Defense Information System, under the Accounting and Information Management Division.

Mr. Brock, good morning, sir. Thank you for being with us.

Mr. Brock. Thank you very much, Mr. McHugh, and I appreciate being here.

I was here on Friday before another one of your subcommittees on the District of Columbia. I will be here next Tuesday on the Department of Defense before Mr. Horn.

So, the problems and the issues that the Postal Service is facing are not unique. I mean every agency, every private-sector company, all face Y2K concerns. So, they are not unique.

Mr. McHugh. Are you renting a room in the back? [Laughter.] Or, are you just commuting? [Laughter.]

Mr. Brock. Well, we are being kept busy, but it is nice to be employed.

Every morning when I get up, I turn on the lights, and I expect the light to turn on. I usually call into my office and check my voice mail, and I expect the phone to work. In a very similar fashion, every afternoon when I come in from work, I go to my mailbox, and the mail is always there. I cannot recall ever having a misplaced letter. I have never had a call from a creditor saying, “Your check, I guess, is in the mail, but we haven't received it.” I mean I have come to expect really—as Mr. Horn has discussed in his opening remarks—first-class service from the post office.

Over 100 million Americans every day have this level of expected service. The logistical operations that the post office has to go through to deliver this 650 million pieces of mail and to provide the ubiquitous service they provide across the Nation is incredibly complex.

Of all the agencies that I have responsibility for reviewing, I think that only the Department of Defense has a more complex set of operations that have to be ready on January 1st.

In many respects, the post office, the Postal Service, is a public utility. It provides a public service that is absolutely necessary, and it has to perform at a high level. There are too many people, too many businesses, that depend on the Postal Service for their livelihood. For example, people getting prescription drugs through the mail are dependent on the Postal Service; others are dependent for delivery of checks. There are other benefit payments, for businesses that depend upon timely receipt and transmission of packages and bulk mail; everything has to work, and it has to work at a high level.

So, just as on January 1st, if you can't turn on your light switch, if you can't pick up the phone and get a dial tone, I think the Postal Service is in a similar situation. If it doesn't deliver mail reasonably effectively, then we are going to have the same kinds of problems. So it is very important the Postal Service work.

I think for that reason, regardless of their status, that it is important to have these hearings and this oversight to provide a great assurance that things will work next year. So, I commend you on having these hearings and providing that level of oversight.

As the Inspector General indicated in her remarks—and I will try not to duplicate it—it is a complex environment that they have. A third of the Federal work force works for the Postal Service. As I mentioned, the 650 million pieces of mail a day that are delivered, thousands of local facilities, over 30,000 individual post offices, a couple of hundred mail facilities that sort mail, deliver, do the set-up that is necessary for mail delivery—all of this is supported by a very rich, complex environment that relies on automation, that relies on computers to make it work.

So, the Postal Service has identified 152 critical systems that have to work in order for the mail to be delivered. They have identified 349 important systems that need to work in order to make life bearable for them. They have identified a number of facilities that must work in order for the mail to be stored, to be delivered. They have identified hundreds and thousands of interfaces that must be in place. They have identified 43 types of mail-processing equipment that are installed in several hundred locations that have to work, and they have identified a number of interfaces, not only within the Postal Service, but with their customers and their suppliers, that also have to work. So, it is not just a question of 152 mission-critical systems working; it is a question of an entire operating environment working. If that does not work, the Postal Service will have problems.

In terms of their status, I think the IG covered that very well. But they are running somewhat behind the OMB guidance for implementation, and, as a result, they are going to be facing some time compressions.

One of the things that I would like to comment briefly on, though, is on what I believe is the strength of the Postal Service and that is their new management structure. Until recently, the burden of ensuring the year 2000 readiness largely resided in the Program Management Office under the general director of the vice president of information systems. The program focus here was more directed at systems and processes that supported business operations, rather than on the readiness of business processes, which typically involve a lot of activities that are more complex than just individual systems.

In December 1998, the Service reorganized its program management to better reflect year 2000 efforts in terms of these business operations. The new organizational structure represents a matrix approach to managing ongoing efforts. Senior vice presidents that have responsibility within functional areas like mail operations or finance or marketing, are now required to ensure that individual business processes will, in fact, be decomposed, and that each process will work.

Those processes are responsible for developing individual contingency plans and for conducting the simulation of what we would call "end-to-end" testing that is required to make sure that processes work, not just systems.

The vice president for Information Systems still has the responsibility for system remediation across these business areas. And then across all of the areas, the Service's chief operating officer has the responsibility for developing a comprehensive business continuity plan to allow for a certain level of business to be conducted in the event of failures.

We are very supportive of this management approach. The problem with it is—we would have been even more pleased if it had been put in place a couple of years ago. So, it is new; it hasn't been tested; it is just getting off the ground. But, nevertheless, if implemented appropriately, we think it will go a long ways toward serving the Postal Service.

However, even with this process in place, we believe the Postal Service has two big, big challenges, and the first one is time. They are running out of it; they have until the end of the year. However, that deadline is further compressed by their business cycle which picks up considerably in September with holiday mailing and further compresses the availability and the attention of top management to devote themselves to Y2K.

Second, they still have a large number of unknowns that they are working toward. They have no complete inventory on the IT infrastructure, on the internal and external interfaces, and on field equipment and systems. They don't know yet whether the majority of the critical vendors they have will, in fact, be ready, themselves, to supply them with goods and services that are necessary for the mail to be delivered. They don't have assurances yet on the public infrastructure—telecommunications, electrical power, things like that, that all businesses, that all Government operations have to depend on. Until they complete their simulation testing, they have no real assurance yet that the internal business processes will work.

So they have a large number of challenges that they must successfully address over the next few months in order to maximize assurance and to minimize risk that, in fact, they will be ready on January 1st.

For that reason, our recommendations are pretty straightforward—is that they, in fact, have sustained attention by the management stakeholders that the plan is followed. They need to develop a comprehensive plan; that is in the stage of being developed, but not yet developed. They need to make sure the plan is followed. They need to make sure that all key decisions are really bought into and made by the key stakeholders, not by the technology guys, but the business guys need to make the decisions about any tradeoffs that will occur on the priorities that the Inspector General said had to be made. They need to ensure that adequate support is being provided throughout the process, and they need to make sure that all the components in the individual business areas really support the whole—that is the mail delivery—that you don't suboptimize individual process in lieu of making the overall process as good as it can be.

Mr. Chairman, that completes my statement, and when the other gentlemen are through, I would be pleased to address any questions that you might have.

[The prepared statement of Mr. Brock follows:]

United States General Accounting Office

GAO

Testimony

Before the Subcommittee on Government Management, Information and Technology and the Subcommittee on the Postal Service, Committee on Government Reform, and the Subcommittee on Technology, Committee on Science, House of Representatives

For Release on Delivery
Expected at
10 a.m.
Tuesday,
February 23, 1999

YEAR 2000 COMPUTING CRISIS

Challenges Still Facing the U.S. Postal Service

Statement of Jack L. Brock, Jr.
Director, Governmentwide and Defense Information Systems
Accounting and Information Management Division

Ms. Chairwoman, Mr. Chairmen, and Members of the Subcommittees:

Thank you for inviting me to participate in today's hearing on the challenges facing the U.S. Postal Service in addressing the Year 2000 problem.[1] Although the Postal Service's main mission is to provide postal services to all communities, the processes it must employ to meet that mission make it among the most complex of the public entities we have examined. The Service employs nearly one third of the federal civilian workforce and provides delivery services for 650 million pieces of mail a day to over 130 million households and businesses. Its national network encompasses 174 processing and distribution centers, hundreds of smaller facilities, 34 air mail centers, 21 bulk mail centers, and nearly 38,000 local post offices, stations, and branches. Moreover, information technology is integral to every facet of postal operations--from sorting, processing and distributing the mail; to dealing with customers; accounting for and managing cash flows; communicating with business partners and other government agencies; and modernizing its facilities.

Clearly, the Service faces a mammoth task in fixing not only its nationwide business systems and related interfaces but the systems and equipment residing in its facilities. The Service has been working hard to address its Year 2000 problem and has recently revamped its management approach that, if successfully implemented, can provide significant support and oversight to its Year 2000 efforts. However, the Service has been running somewhat behind OMB's schedule for system renovation and still must address major issues to complete system and mail processing equipment correction and testing, ensure the readiness of hundreds of local facilities, and determine the ability of key suppliers and interface partners to be Year 2000 ready. Further, the Service needs to complete the "simulation" testing of its business process areas as well as complete the development and testing of its business continuity and contingency plans. These challenges are further exacerbated by the fact that the Service anticipates a surge in workload beginning in September due to the holiday business rush, which typically requires greater management attention.

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[1] The Year 2000 problem is rooted in the way dates are recorded and computed in automated information systems. For the past several decades, systems have typically used two digits to represent the year, such as "97" representing 1997, in order to conserve on electronic data storage and reduce operating costs. With this two-digit format, however, the year 2000 is indistinguishable from 1900, or 2001 from 1901. As a result of this ambiguity, system or application programs that use dates to perform calculations, comparisons, or sorting may generate incorrect results.

It is critical that these challenges be adequately addressed before next January 1. In many respects, the Postal Service provides critical services that are as ubiquitous as telecommunications or electrical power. A Year 2000-based disruption in mail delivery would have a serious impact across every sector of the American economy. Further, reliance on the Postal Service is part of the contingency plans for many organizations that require a backup process to electronically delivered transactions and services.

Our testimony is based on our review of the Service's conversion strategy and other Year 2000 planning documents and the Service's Year 2000 guidance and internal development standards as well as our discussions with U.S. Postal Service officials responsible for overseeing the Year 2000 effort. We compared the Service's efforts to criteria detailed in our Year 2000 Assessment Guide,[2] Business Continuity and Contingency Planning Guide,[3] and Testing Guide.[4] This guidance offers a structured and disciplined approach to managing the risk of potential Year 2000-induced disruptions to operations. We conducted our work in cooperation with the Service's Inspector General and in accordance with generally accepted government auditing standards between September 1998 and February 1999.

POSTAL SERVICE RELIES EXTENSIVELY ON AUTOMATED SYSTEMS

For the Postal Service to ensure continuity of operations after the century date change, it must assess, remediate, and validate several interlocking components of its operating and support infrastructure. These include: "severe and critical" (mission critical) business systems which provide essential support for postal operations; "important" business systems that are necessary for continued operations but where failure would not have an immediate, significant impact on business continuity; mail processing equipment; facilities and other infrastructure support activities; and vendors who provide essential goods and services to the Postal Service.

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[2] Year 2000 Computing Crisis: An Assessment Guide (GAO/AIMD-10.1.14). Published as an exposure draft in February 1997 and finalized in September 1997.

[3] Year 2000 Computing Crisis: Business Continuity and Contingency Planning (GAO/AIMD-10.1.19). Published as an exposure draft in March 1998 and finalized in August 1998.

[4] Year 2000 Computing Crisis: A Testing Guide (GAO/AIMD-10.1.21). Published an exposure draft in June 1998 and finalized in November 1998.

- The Service has 152 "severe and critical" business systems that it must assess, correct, and verify to ensure Year 2000 compliance. This includes the Postal Metering System, Money Order System, Mail Distribution Requirements System, Air Contracting Support System, Vehicle Tracking and Performance System, as well as critical financial management systems. Many of these systems have no workarounds and their failure would significantly disrupt postal operations. The Service has reported that it has finished renovation work on 106 of its 152 severe and critical business information systems and it expects to implement all but 11 systems by OMB's target March 31, 1999, deadline. Ten of the 11 remaining systems are expected to be done by July 1999 and the 11th by mid-November 1999.
- The Service also owns 349 "important" business systems—systems for which workarounds exist and whose failure will result in an inconvenience, but not significantly impact core business activities. These include the Worker Compensation Information System, the Resource Management System, the Customer Satisfaction Measurement System, the Consumer Affairs Tracking System, and the Relocation Payment System. The Service reports that 215 of these systems have been renovated with most of these scheduled for completion this quarter. Unlike the "severe and critical" systems, the "important" systems are not required to undergo independent validation and

verification to provide additional assurances of Year 2000 compliance. However, a number of these systems will go through such a process upon the request of business process owners.

- In addition to business systems, the Service relies on a broad range of equipment to sort, deliver, and process mail. This includes such things as small parcel and bundle sorter equipment, flat mail sorters and optical character readers, and priority mail and bulk mail processing equipment. The Service has 43 types of equipment which are deployed in various locations across the country. It reports, as of December 31, that 37 types had been renovated and the remainder are on schedule for remediation by August 1999.
- The Service has estimated that it has over 100,000 pieces of hardware and software to assess and correct when necessary, including mainframe computers, personal computers, networks, and operating systems. It also must assess and fix a wide range of infrastructure-related assets installed in hundreds of its facilities and tens of thousands of post offices. This includes building access control systems, safety systems, air conditioning and heating systems as well as elevators. The Service is still in the process of assessing this equipment.
- Service systems interface with computer systems belonging to federal, state, and local governments and hundreds of private businesses. Because of these interdependencies, postal systems are also vulnerable to failure caused by incorrectly formatted data provided by other systems that are

noncompliant. According to the Service, about 1,600 external interfaces have been identified to date. Of that number, over 800 are considered to be severe and critical. The Service is in the process of contacting each external interface partner to assess the work that needs to be done with these interfaces.

- The Service is heavily dependent on almost 600 key vendors and suppliers (such as airlines and railroads) that provide goods and services necessary to mail delivery. If key supplier systems are not Year 2000 compliant in time, postal operations could be severely disrupted. In late 1998, the Service surveyed critical suppliers as to their Year 2000 readiness. Sixty percent of the suppliers responded. Of these, only 31 percent affirmed that they would be Year 2000 compliant in time.
- The Service, like most organizations, depends on public infrastructure systems, such as those that provide power, water, transportation, and voice and data telecommunications. Given the scope and intricate nature of the Service's national network, even localized disruptions in infrastructure-related services could seriously impact postal business operations.

While the Postal Service's progress in renovating its systems has picked up in recent months, the Service has lagged behind OMB and GAO recommended milestones for assessment,[5] renovation,[6] and validation.[7] For example, the

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[5] During the assessment phase, organizations determine the Year 2000 impact on the enterprise, identify core business areas and processes, inventory systems supporting core business areas, and prioritize their conversion or replacement. They should also develop contingency plans and identify data exchange issues. This lays the groundwork for the ensuing phases of the program.

Service reported that as of the OMB renovation deadline of September 1998, about 22 percent of its mission-critical systems had not been corrected. As of the OMB validation deadline of January 1999, only 27 percent of its mission-critical systems had been validated. Moreover, the Service has been late in undertaking important related tasks. For example, the Service's testing strategy was not completed until November 1998 and contingency plans were not begun until December 1998. Our Year 2000 Assessment Guide recommends that both of these tasks be initiated before August 1997, toward the end of the assessment phase.

POSITIVE STEPS TAKEN TO STRENGTHEN MANAGEMENT OF YEAR 2000 AND ENSURE CONTINUITY OF OPERATIONS

The delays in the Service's Year 2000 progress were in part attributable to the fact that the Service was slow to recognize the severe and pervasive impact of the problem and lacked sufficient planning processes and corporatewide involvement. Until recently the burden of ensuring Year 2000 readiness largely resided in a program management office under the general direction of the Vice

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[6] During the renovation phase, organizations convert, replace, or eliminate selected platforms, applications, databases, and utilities as well as modify interfaces.

[7] During the validation phase, organizations test, verify, and validate converted or replaced platforms, applications, databases, and utilities.

President of Information Systems. The program focus was more directed at systems and processes that supported business operations rather than on the readiness of business processes which typically involve a number of activities and support mechanisms outside the systems realm.

In December 1998, the Service reorganized its program management to better reflect Year 2000 efforts in terms of its business operations. The new organizational structure represents a matrix approach to managing ongoing efforts. Senior vice presidents have responsibility within their functional areas (e.g. mail operations, finance, marketing, and national systems) to ensure that individual business processes are decomposed and that each process undergoes "simulation" testing[8] and that contingency plans are developed for each process. The Vice President for Information Systems still has responsibility for system remediation across the business areas. To better ensure that these individual business processes will support overall operations, the Service's Chief Operating Officer will be responsible for developing business continuity plans. The overall management approach is managed by an executive council under the direction of the Deputy Postmaster General.

This new management approach offers the Postal Service an improved opportunity for linking business processes to Year 2000 problems and solutions. We recommend this linkage in our Year 2000 guidance. However, as with most new management models, there is little basis for assured success without sustained follow through to ensure effective implementation. Accordingly, this new approach will require close oversight to ensure results.

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[8] The purpose of this testing is to verify that a defined set of interrelated systems, which collectively support a core business area or function, interoperate as intended in a simulated operational environment.

SIGNIFICANT CHALLENGES STILL FACE THE SERVICE IN MONTHS AHEAD

Even with a stronger management structure now in place, there are substantial challenges still facing the Service. If they are not addressed adequately, these challenges will threaten the Postal Service's ability to delivery the mail—on time—next January.

The primary challenge, of course, is time. Because the Service has been behind schedule, it is now playing catch-up. Exacerbating the time issue is the anticipated holiday business rush, which typically starts in September. This surge in workload will require Service management to split its attention and resources.

Second, there are still many unknowns about the Postal Service's core business processes. The Service does not yet have complete inventory and status information on its information technology infrastructure, internal and external interfaces, and field equipment and systems. Nor does the Service yet know whether the majority of its critical vendors will be ready in time or have assurance that public infrastructure systems, including power, water, transportation, and telecommunications will be compliant in time. Finally, until the simulation testing is complete and contingency plans and business continuity plans are developed and tested, the Service will not have reasonable assurance on its readiness.

These two factors make it imperative for the Service to develop a comprehensive plan to guide existing efforts for testing, contingency planning, quality assurance, risk and issue management, interface management, and certification and validation; provide a master Year 2000 schedule; and identify priorities. They also make it imperative for the Service to ensure that attention to the problem is sustained by the Deputy Postmaster General, the senior vice presidents, the chief operating officer, chief financial officer, chief management officer, chief technology officer and other top executives. That is, these stakeholders should (1) ensure that the overall management plan is developed and followed, (2) participate in making critical decisions in all phases of the project, (3) continue to provide resources and support for the program, and (4) ensure that all components and business areas fully support and participate in the process.

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This concludes my statement. I will be pleased to answer any questions you or Members of the Subcommittees may have.

(511132)

GAO
United States
General Accounting Office
Washington, D.C. 20548

Accounting and Information
Management Division

B-282525

April 23, 1999

The Honorable John M. McHugh
Chairman
The Honorable Chaka Fattah
Ranking Minority Member
Subcommittee on the Postal Service
Committee on Government Reform
House of Representatives

Subject: U.S. Postal Service: Subcommittee Questions Concerning Year 2000 Challenges Facing the Service

In response to your March 16, 1999, request, this letter provides answers to questions relating to our February 23, 1999, testimony on challenges facing the U.S. Postal Service in addressing the Year 2000 problem.[1] As we noted in our testimony, the Service has been working hard to address its Year 2000 problem and has recently revamped its management approach. If successfully implemented, its approach can provide significant support and oversight to Year 2000 efforts. However, the Postal Service has been running behind the Office of Management and Budget's (OMB) schedule for system renovation and still must address major issues to correct and test system and mail processing equipment, ensure the readiness of thousands of local facilities, and determine whether and when its key suppliers and interface partners will be Year 2000 compliant. The questions and our responses follow.

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[1] Year 2000 Computing Crisis: Challenges Still Facing the U.S. Postal Service (GAO/T-AIMD-99-86, February 23, 1999).

1. *What is the 1999 problem? Will this impact the Postal Service? Will the Postal Service be impacted by other dates? Please explain.*

The Year 2000 problem, which is rooted in the way dates are recorded and computed in automated information systems, is primarily associated with dates on or after *January 1, 2000*. However, computer systems using two digits to denote the year may be vulnerable to "special dates" in 1999 as well. For example, *April 9, 1999,* when written in the Julian calendar, and *September 9, 1999*, when written in the Gregorian calendar, are represented as 9999. This could cause systems to malfunction because 9999 is often assigned a special meaning, such as invalid date or end file. As noted in our testimony, these problems could disrupt the delivery of mail or other critical Postal Service business processes such as financial and personnel management. To our knowledge, April 9, 1999, however, did not prove to be problematic for the service.

In addition, because 2000 is a leap year, some computer systems may incorrectly process the last day of February 2000 (*February 29, 2000*), and the first day following the last day in February 2000 (*March 1, 2000*). The Postal Service has determined that its systems are susceptible to September 9, 1999, as well as 25 other "special dates," and it is testing its "critical and severe" systems[2] to ensure that they can correctly handle these dates.

2. *At what point should the Postal Service plan to make permanent fixes to its systems? What sort of timeframes should be considered? What might it cost to make permanent repairs? Is the Postal Service looking at this issue?*

Like many organizations with older computer systems, the Postal Service is currently pursuing a "windowing" approach to date conversion rather than expanding date fields from two to four characters. Under this approach, software is written to associate a fixed or sliding period of years with either the 20th or the 21st centuries. Many organizations with older computer systems are pursuing this approach because, in some cases, especially where data sets are large and date dense and available storage is limited, it presents a quicker and less costly solution to the Year 2000 problem. Also, because as much as several decades can be covered by the fixed or sliding window, permanent system fixes or replacements may not be immediately required.

The Postal Service Year 2000 officials have advised us that windowing fixes will remain viable beyond the year 2048 for all but two systems, which will remain viable until the year

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[2] These are systems the Postal Service has determined that it must assess, correct, and verify to ensure acceptable service to the public. They include, for example, the Postal Metering System, Money Order System, Mail Distribution Requirements System, and Air Contracting Support System.

2019. According to the Postal Service, replacement schedules have already been developed for permanent fixes for these two systems.

3. *What happens to the Postal Service and its systems beyond the Year 2000? Will they suffer from increased vulnerabilities of patched systems? Or will they benefit from strengthened and updated infrastructures?*

If the Postal Service is able to effectively correct its systems, then the systems should continue to operate without Year 2000-related problems until the period covered by the sliding of fixed windows expires. As we testified, if these fixes are not done effectively, then systems could malfunction and disrupt critical postal operations.

According to the Postal Service Year 2000 program manager, the Postal Service has realized significant benefits from their Year 2000 efforts. These include the elimination of unnecessary software code; replacement of antiquated, locally developed software applications; and modernization of information technology equipment, including mainframe computer systems, mid-range computer systems, and desktop workstations. In addition, according to Postal Service officials, the Service is implementing improved processes for documenting software, testing, quality control, and configuration management. We did not assess the Service's implementation of these actions. However, while these steps should enhance information technology management well beyond 2000, they represent fundamental management practices that should have been in place long before the Year 2000 problem was identified.

4. *Is GAO specifically looking at the extent to which federal agencies are hiring contractors for Y2K and the amount of money being paid out for services? Are you monitoring contractors performing Y2K efforts to ensure that the agencies are receiving timely and quality services? If not, why not?*

We are not monitoring or assessing contractor efforts at federal agencies. We are reviewing agency progress in achieving Year 2000 compliance based on self-reported data provided to OMB and discussions with agency Year 2000 program management officials. The Inspector General of the Postal Service, however, is planning a Year 2000 conversion contract examination as part of the IG's continuing audits of Year 2000 issues within the Postal Service.

5. *What types of parameters are needed by the Postal Service in devising a national-based contingency plan? What items must it consider as part of a contingency plan? What happens if it runs into something it didn't anticipate?*

The Postal Service is following our Business Continuity and Contingency Planning guide,[4] which provides a conceptual framework for managing the risk of potential Year 2000-induced disruptions to operations and incorporates best practices in contingency planning and disaster recovery. Our guide describes a structured approach for (1) initiating a business continuity project, (2) assessing the potential impact of mission-critical failures on agency core business processes, (3) identifying and documenting contingency plans and implementation modes, and (4) validating the business continuity strategy. It recommends that agencies develop a business continuity plan consisting of a set of contingency plans—with a single plan for each core business process and infrastructure component (e.g., power and telecommunications services). Each plan should provide a description of the resources, staff roles, procedures, and timetables needed for its implementation.

The Postal Service's Chief Operating Officer has recently started to work with individual business area managers to develop contingency and business continuity plans. In developing these plans, Postal Service officials have told us that they intend to follow our guidance. However, we also testified that this planning did not begin until December 1998, whereas our Year 2000 Assessment Guide recommends that it begin before August 1997, toward the end of the assessment phase. Further, contingency plans are not scheduled to be completed and tested until June 30, 1999, and continuity plans are not scheduled to be completed and tested until August 1999 and tested again in November 1999. This schedule will leave the Service with little room for slippage or for making adjustments to ensure that contingency and continuity plans are practical and cost effective. And, as we testified, this challenge is further exacerbated by the fact that the Service anticipates a surge in workload beginning in September due to the holiday business rush, which typically requires greater management attention.

6. *Can the Postal Service control the external supplier problem? If so, how?*

As noted in our testimony, the Postal Service is heavily dependent on 271 key vendors and suppliers, such as airlines, which provide goods and services necessary to mail delivery. If their systems are not Year 2000 compliant in time, postal operations could be severely disrupted. However, the Postal Service's ability to control its suppliers is limited and, therefore, it must rely on statements of assurance of Year 2000 compliance by its suppliers. As of April 23, 1999, according to the Service, 265 suppliers had reported that they are or will be compliant by January 1, 2000. The Service is pursuing the readiness status of the remaining 6 suppliers. According to the Service, any critical suppliers assessed as non-compliant or for which the readiness status has not been determined will be part of Postal Service contingency planning activities.

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[4] Year 2000 Computing Crisis: Business Continuity and Contingency Planning (GAO/AIMD-10.1.19). Issued as an exposure draft in February 1998; issued in final in August 1998.

7. *What can you tell us about the Postal Service "core business processes?" What are they and why are they important?*

According to the Postal Service's Year 2000 Initiative Project Plan, the primary objective of its Year 2000 effort is to enable the continuous delivery of mail. To meet this objective, it is placing particular emphasis on four core business processes: (1) collecting, processing, and delivering the mail, (2) paying employees and suppliers, (3) collecting revenue, and (4) protecting the safety and well-being of postal employees. Some of these are clearly more Year 2000 dependent than others, and, as such, will require greater attention from Postal Service management. As we noted in our testimony, in many respects, the Postal Service provides critical services that are as ubiquitous as telecommunications or electrical power. A Year 2000-based disruption in mail delivery would have a serious impact across every sector of the American economy. Further, reliance on the Postal Service is part of the contingency plans for many organizations that require a backup process for electronically delivered transactions and services. Therefore, it is essential that the Service maintain continuity in its core business processes.

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To respond to these questions, we reviewed and analyzed documents describing the Postal Service's Year 2000 compliance efforts as well as its annual report. We conducted our work from March 1999 through April 1999 in accordance with generally accepted government auditing standards. In developing this report, we discussed our findings with and obtained comments on a draft of this letter from the Postal Service's Year 2000 program manager.

We are sending copies of this letter to Representative Steven Horn, Chairman, and Representative Jim Turner, Ranking Minority Member, Subcommittee on Government Management, Information, and Technology, House Committee on Government Reform; and Representative Connie Morella, Chairwoman, and Representative James Barcia, Ranking Minority Member, Subcommittee on Technology, House Committee on Science. We are also sending copies of this report to William J. Henderson, Postmaster General, as well as other interested parties. If you have any questions regarding this report, please contact me or Carl Urie, Assistant Director, at (202) 512-6240.

Jack L. Brock, Jr.
Director, Governmentwide and Defense
Information Systems

(511148)

Mr. McHugh. Thank you very much, Mr. Brock. We appreciate your comments.

Our last presenter this morning is Mr. Norman Lorentz, who is senior vice president and Chief Technology Officer for the U.S. Postal Service.

Good morning, Mr. Lorentz. Thank you for being here. As you may have gathered, you and your department are the focus of our attention here this morning. So, we are very anxiously awaiting your comments.

And with that, our attention is yours.

Mr. Lorentz. Good morning, Chairman McHugh, Chairman Horn, Chairwoman Morella, and subcommittee members.

On behalf of the U.S. Postal Service, I welcome the opportunity to speak to you today about the Postal Service's efforts to address the year 2000 computer problem.

With me today are Nicholas Barranca, the vice president of operations planning, and Richard Weirich, vice president of information systems.

It is gratifying, not only to myself but to the Postal Service employees in thousands of communities across the Nation, to be reminded of the trust and confidence the American people have in the mail system.

While years of predictions suggest that there is no place for paper-based communications in this digital world, the fact that we are sitting here today demonstrates that is not the case.

As Postmaster General William Henderson said in this very room less than 2 weeks ago, "The health of the Postal Service is important to the American people. It is a measure of how much American companies and consumers depend on reliable, reasonably priced postal services to communicate and conduct business."

We have taken this obligation seriously for the last two centuries, and we take it just as seriously as we move into the next. The coming of the year 2000 presents a host of challenges. The coming year is both anticipated and never before experienced, by either the Postal Service or any other business or Government agency.

The Postmaster General and senior Postal Service management are giving this subject significant attention, with weekly meetings of the Management Committee serving as a forum for reports and discussion about the status of our year 2000 program. This is one of the most important public policy issues we are facing this year.

It is a challenge of vast magnitude with a deadline—as was mentioned—311 days away, that cannot be changed. And it is a challenge that has engaged the men and women of the Postal Service for a number of years.

Like any forward-thinking organization, the Postal Service is doing everything possible to minimize and eliminate the potential for disruption that could arise from the year 2000 computer problem. But, unlike many of those organizations, only the Postal Service is in the position of saying, "The buck stops here!"

The fact is, the Postal Service is part of the year 2000 contingency plans for many organizations that rely on electronic communications, whether benefit payments by Federal agencies, electronic payments in the private sector, or simple data transmission from person to person. This means that our readiness efforts must focus on maintaining the ability to process and deliver normal mail volumes as we enter the new year, and to absorb additional volumes that could be diverted from the electronic message stream.

I want to state clearly and unequivocally that we are ready in the U.S. Postal Service to take on this challenge.

Our mail system is no stranger to operating successfully through national and regional disruptions. We delivered 2 years ago when a strike all but shut down the United Parcel Service, just as we delivered through two recent airline strikes. Since the first days of the national postal system, we have found ways to deliver through war, floods, earthquakes, and other natural disasters.

Even with this experience, we want to be sure that we are doing the right things to prepare for the potential year 2000 disruptions. This is why our planning for the year 2000 problem has been extremely thorough, establishing a step-by-step program that takes us in to a new century with a reasonable level of assurance that the Postal Service will continue to deliver.

We began our efforts with an inventory of all components and all systems that can be affected. The next step was the assessment of the criticality of each of these systems. One question was, "Is this system necessary to our core mission of delivering the mail?" Then we began remediation efforts on our mission-critical systems. If we found a problem, we fixed it. It is not sufficient that our own people tell us that something is fixed. We also require independent verification that our key components and systems have been fully remediated.

With remediation efforts on schedule, we are expanding our focus this year to the next logical steps—business continuity planning and recovery management.

Simulation testing, in an actual operating environment, helps add further confirmation to the status of remediation. Knowing what individual elements of our systems and processes will be available provides us with a firm foundation for business continuity planning.

We began testing our critical mail-processing systems last August at a mail-processing plant in Tampa and a bulk mail center in Atlanta. The results of these tests and others that are being conducted are very, very encouraging. They demonstrate that, following remediation of our basic mail-processing equipment, mail is being sorted correctly as it moves through our system.

Despite our best efforts to fix all of the vulnerable systems and components, and testing them to make sure they work, being prepared means that we also have to anticipate that there may be some year 2000 problems.

In our own systems, we are looking at 100 million lines of computer code. On top of that, we rely on commercial air and surface transportation to move mail both locally and across the country. We also power our facilities from the same utilities as other customers. As you can see, some of the key elements that are necessary to support a national postal system are not within our direct control.

Through business continuity planning, we are exploring "what if" scenarios that anticipate specific disruptions, internal or external, that might arise. The “work arounds” we are developing will help us to minimize the potential problems. All of our senior officers are actively engaged in the process. But business continuity plans cannot be successful by themselves. They go hand-in-hand with recovery management.

Recovery management gives our people a structured way to report problems and implement the plans that have been designed to address them. Some decisions will be based on specific plans that have been developed to meet a particular contingency. Other decisions will be dynamic, based on the unique confluence of events that may occur at any point in time. Either way, recovery management is one of the most important tools we will have to continue moving the mail.

Throughout each of these key processes—remediation, business continuity planning, and recovery management—our actions have been consistent with the approach taken by other Government and private-sector organizations. We have contracted with the help of over 1,300 technical support people to implement and manage many of the technical elements of this critical program. The entire effort is being supported by a level of financial resources necessary to address this once-in-a-lifetime issue. Unlike other Government agencies, the U.S. Postal Service is receiving no appropriations for the year 2000 readiness.

While we at the Postal Service are confident that we are doing the right things to protect universal service, we also recognize that we do not have all of the answers—and nobody does.

In this respect, we welcome the positive contribution of those who have reviewed our activities and offered us constructive suggestions and proposals. Both the U.S. Postal Service’s Inspector General and the General Accounting Office, who also reported to you today, have been actively engaged in helping us to meet this challenge.

In closing, I can’t promise that there will be no problems, but we remain confident that with the continued hard work of everyone involved in this effort, we will achieve our goals of delivering the mail, protecting our employees, and protecting our finances.

Thank you.

[The prepared statement of Mr. Lorentz follows:]

TESTIMONY OF NORMAN E. LORENTZ
SENIOR VICE PRESIDENT AND CHIEF TECHNOLOGY OFFICER
UNITED STATES POSTAL SERVICE

BEFORE A JOINT HEARING OF THE
COMMITTEE ON GOVERNMENT REFORM
SUBCOMMITTEES ON THE POSTAL SERVICE
AND
GOVERNMENT MANAGEMENT, INFORMATION, AND TECHNOLOGY
AND THE
SUBCOMMITTEE ON TECHNOLOGY
OF THE
COMMITTEE ON SCIENCE

HOUSE OF REPRESENTATIVES
FEBRUARY 23, 1999

Good morning, Chairman McHugh, Chairman Horn, Chairperson Morella, and subcommittee members.

On behalf of the United States Postal Service, I welcome the opportunity to speak with you today about the Postal Service's efforts to address the Year 2000 computer problem. With me today are Nicholas Barranca, Vice President of Operations Planning and Richard Weirich, Vice President of Information Systems.

It is gratifying, not only to myself, but to Postal Service employees in thousands of communities across the nation, to be reminded of the trust and confidence the American people place in their mail system.

While years of predictions suggest that there is no place for a paper-based communications system in a digital world, the fact that we are sitting here today demonstrates that this is not the case.

As Postmaster General William Henderson said in this very room less than two weeks ago, "the health of the Postal Service is important to the American people . . . (it) is a measure of how much American companies and consumers depend on reliable, reasonably priced postal services to communicate and conduct business."

We have taken this obligation seriously for the last two centuries, and we take it just as seriously as we move into the next. The coming of the year 2000 presents a host of challenges—both unanticipated and never before experienced—by either the Postal Service or any other business or government agency.

The Postmaster General and senior Postal Service management are giving this subject significant attention, with weekly meetings of the Management Committee serving as a forum for reports and discussion about the status of our Year 2000 program. This is one of the most important public policy issues we are facing this year.

It is a challenge of vast magnitude with a deadline that cannot be changed. And it is a challenge that has engaged the men and women of the Postal Service for a number of years.

Like any forward-thinking organization, the Postal Service is doing everything possible to minimize and eliminate the potential for disruption that could arise from the Year 2000 computer problem. But, unlike many of those organizations, only the Postal Service is in a position to say, "The buck stops here!"

The fact is, the Postal Service is part of the Year 2000 contingency plans of many organizations that rely on electronic communications, whether benefit payments by federal agencies, electronic payments in the private sector, or simple data transmission from person to person. This means that our readiness efforts must focus on maintaining the ability to process and deliver normal mail volumes as we enter the new year, and to absorb additional volumes that could be diverted from the electronic message stream.

I want to state clearly and unequivocally to each of you today—the Postal Service is taking on this challenge!

Our mail system is no stranger to operating successfully through national and regional disruptions. We delivered two years ago when a strike all but shut down United Parcel Service; just as we delivered through two recent airline strikes. Since the first days of a national postal system, we found ways to deliver through war, floods, earthquakes, and other natural disasters.

Even with this experience, we want to sure that we are doing the right things to prepare for potential Year 2000 disruptions. This is why our planning for the year 2000 problem has been extremely thorough, establishing a step-by-step program that takes us to the new century with a reasonable level of assurance that the Postal Service will continue to deliver.

We began our efforts with inventory of all components and systems that could be affected. The next step was an assessment of the criticality of each one of those systems. Our question was, "is this system necessary to our core mission of delivering the mail?"

Then we began remediation efforts on our mission critical systems. If we found a problem, we fixed it. And, it's not sufficient that our own people tell us that something has been fixed. We are also requiring independent verification that our key components and systems have been remediated.

With remediation efforts on schedule, we've expanded our focus this year to the next logical steps—business continuity planning, and recovery management.

Simulation testing, in an actual operating environment, helps add further confirmation to the status of remediation. Knowing what individual elements of our systems and processes will be available provides us with a firm foundation for business continuity planning.

We began testing of our critical mail processing systems last August at a mail processing facility in Tampa and a bulk mail center in Atlanta. The results of those tests, and others that are being conducted, are very encouraging. They demonstrate that, following remediation of our basic mail-processing equipment, mail is being sorted correctly as it moves through our system.

Despite our best efforts to fix all vulnerable systems and components, and testing them to make sure they work, being prepared means that we also have to anticipate that there may be some year 2000 problems.

In our own systems, we are looking at 100 million lines of computer code. On top of that, we rely on commercial air and surface transportation to move mail locally and across the country. We also power our facilities from the same utilities as our customers. As you can see, some of the key elements that are necessary to support a national postal system are not within our direct control.

Through business continuity planning, we are exploring "What If" scenarios that anticipate specific disruptions—internal or external—that might arise. The "work arounds" we are developing will help us to minimize potential problems. All of our senior officers are actively engaged in this process.

But business continuity plans cannot be successful by themselves. They go hand-in-hand with a process we call recovery management.

Recovery management gives our people a structured way to report problems and implement the plans that have been designed to address them. Some decisions will be based on specific plans that have been developed to meet a particular contingency. Other decisions will be dynamic, based on a unique confluence of events that may be occurring at the time.

Either way, recovery management is one of the most important tools we will have to keep the mail moving.

Throughout each of these key processes--remediation, business continuity planning, and recovery management—our actions have been consistent with the approach taken by other government and private sector organizations. We have contracted for the help of about 1,100 technical support people to implement and manage many of the technical elements of this critical program. The entire effort is being supported by a level of financial resources necessary to address this once-in-a-lifetime issue. And, unlike other government agencies, the Postal Service is receiving no appropriations for Year 2000 readiness.

While we at the Postal Service are confident that we are doing the right things to protect universal service, we also recognize that we do not have all of the answers. Nobody does.

In this respect, we welcome the positive contributions of those who have reviewed our activities and offered us constructive suggestions and proposals. Both the Postal Service's Inspector General and the General Accounting Office, who also reported to you today, have been actively engaged in helping us to meet this challenge.

In closing, I can't promise that there will be no problems. But we remain confident that with the continued hard work of everyone involved in this effort, we will achieve our goals of delivering the mail, protecting our employees, and protecting our finances.

Thank you very much.

# # # # # #

QUESTIONS

Panel Three – USPS, Norman Lorentz

1. **Will there be any interruption in your ability to deliver social security checks and all other government benefit payments, after January 1, 1999? Will mail be delivered after that date—without a hitch? Will you be able to deliver mail at today's level of service?**

ANSWER: In spite of the uncertainty accompanying the arrival of the new millennium and possible Year 2000 related disruptions, we are quite confident there will be no interruptions in the delivery of mail. We fully expect to deliver at the same or better level of service as that provided in January of 1999. Note that on any given day in any given location in the country, service varies based on circumstances beyond our control – snow and ice storms, commercial airline and airport interruptions, competitor work stoppages, etc. However, these kinds of disruptions, and their negative impact on mail delivery, are short-lived. We expect the effects of Year 2000 disruptions on mail delivery will be no more or less noticeable than the effects of January's winter weather.

2. **Why didn't the postal service start to develop a business continuity and contingency plan before January 1999? What date do you anticipate completing these plans?**

ANSWER: During the time leading up to January 1999, the Year 2000 focus of the Postal Service was on remediating all critical and important systems – including computing hardware, software applications, embedded computers in equipment, and embedded computers in building systems. We were also busy beginning the process of researching Year 2000 readiness of our critical and important suppliers. In January, we appropriately began the processes of component contingency planning and of business continuity planning. The only relevant date is that of completion. Our Headquarters-developed, baseline planning will be done by June 1. This level of planning will be completed and customized by our field locations by August 1. The Postal Service has enjoyed a long history of successfully performing under a variety of adverse operating conditions. Much of that success can be attributed to the planning we regularly undertake for the occurrence of operational disruptions.

3. **To date, how much money has been spent on contractors for Y2K?**

ANSWER: Though Accounting Period 7 FY 99, a total of $161,917,718 has been spent on contractor services. Attachment 1 specifies the expenses by contractor and year.

4. **How are you monitoring contractors performing Y2K efforts to ensure that you are receiving timely and quality services?**

ANSWER: USPS PCES managers monitor contractor performance through the life cycle of their work. This includes hiring/staffing contractor personnel, directing their work assignments, controlling the time they spend on the efforts and assessing the quality of the services delivered.

- Based on the Y2K work plans, postal managers determine the number, skills, and source of personnel required to perform the work. Staffing requests detailing the number and skills of contractor personnel to be hired are developed and are approved by the accountable postal manager.

- The accountable postal manager assigns each contractor resource to a specific Y2K task and ensures that this is entered into the Postal Service's Program Cost Tracking System (PCTS) for time validation.

- On a weekly basis, all contractors are required to report their Y2K chargeable time into the Postal Service's time reporting system (PCTS); this time is reviewed and approved weekly by the accountable postal manager.

- On a weekly basis, the contractors are required to report to the accountable postal managers on the progress of work being performed for the Y2K effort as well as the status of specific contract deliverables.
- On a monthly basis, contractors are required to report to the accountable postal managers and the Contracting Officers' representatives on the activities performed against the agreed upon performance tasks and deliverables, the risks and issues, and the upcoming work to be performed.
- On a weekly basis, though sometimes more frequently, postal management assesses the quality and timeliness of supplier work against agreed upon work plans, and those who are not performing as required are replaced as needed.

5. Since the postal service itself will serve as a viable Y2K contingency plan to other entities, how will we know how well your plan will work since you don't have one?

ANSWER: The Postal Service's Year 2000 initiative comprises of three major programs. The Remediation program is a technical, find-and-fix strategy aimed at eliminating Year 2000 induced failures of our internal systems. One of the final steps in this program is called Component Contingency Planning. Here, workarounds are formally documented for all critical internal systems.

A second program, Business Continuity Planning, addresses possible Year 2000 disruptions to mission critical processes. Plans for continuing all mission critical processes are being completed for a variety of operational scenarios that may occur at the turn of the century. Among the scenarios being planned are possible changes in customers' mailing behavior:

- Mailings being advanced to December.
- Mailings being delayed to the end of January.
- Mailings being shifted from one product line (i.e., First-Class) to another product line (i.e., Priority Mail).
- Electronic communications being diverted temporarily to paper based mailings.

The third program, Recovery Management Planning, will provide the Postal Service's command, control, and communications for "Day 1." Recovery Management Planning ensures the right policies and preparations are in affect and being practiced prior to January 1. Recovery Management Planning also ensures the Postal Service's ability to discover problems, engage stakeholders in fixing problems and invoking continuity/contingency plans, and track results.

These planning processes will all be completed, practiced as necessary, and communicated throughout the organization according to carefully prepared and integrated schedules.

6. Who are your largest external suppliers and how do they currently impact your operations? What measures are you taking to have your suppliers certify they are or will be Y2K compliant?

ANSWER: Generally, our largest and most important suppliers are those that impact the Postal Service's core operations. These include manufacturers of automated mail processing equipment, commercial airlines transporting the mail, and companies that handle specific missions, such as the Priority Mail Network and Express Mail hub, or the measurement of our on-time performance.

As to Y2K compliance, since 1997, Postal Service contracts for information technology and related items have required that the purchased items be able to continue operating after the turn of the century. In addition, our Supplier Management Office (SMO) was established last year to assess the Year 2000 readiness of suppliers of products and services critical to core Postal Service business processes. SMO inventories and communicates with such critical suppliers, and coordinates with them regarding Year 2000 readiness and remedial actions necessary. We will continue to actively pursue this effort throughout 1999.

7. What is the status of the payroll systems—will they be Y2K compliant?

ANSWER: The answer is yes, The USPS Payroll System will be Y2K compliant. All parts of the system are Y2K compliant today, except for the Retirement part that will be done approximately by April 23, 1999.

As a further check on this, we will perform additional internal testing on Payroll, and extensive Simulation Testing in June and July to provide a further assurance of its readiness from end to end.

We also have a Business contingency and continuity set of plans developed as a further set of assurance of our ability to meet our bi-weekly payroll.

8. How is management accountability assigned for the Year 2000 effort within the postal service? Don't your managers receive bonuses based upon on-time mail delivery? How would Y2K disruptions in mail delivery impact bonuses?

ANSWER: The management incentive plan for fiscal year 2000 is currently in development. As in past years, part of the incentive will be based upon on-time delivery. If service levels are not achieved, regardless of the reason, the incentive credit for on-time delivery is not given.

9. Who has liability insurance coverage for Y2K? Is the USPS IG covered? If not, why not?

ANSWER: The Postal Service does not purchase Y2K liability insurance coverage for its officers or employees, including the Inspector General and staff. Under the Federal Employees Liability Reform and Tort Compensation Act of 1988, 28 U.S.C. § 2679, if a common law tort action is brought against a postal or other federal employee for actions within the scope of employment, upon motion by the U.S. Department of Justice, the United States is substituted as the defendant. The suit proceeds, if at all, against the United States in accordance with the Federal Tort Claims Act. Accordingly, postal officials should not have reason to fear personal tort liability for Y2K actions taken within the scope of their employment, and liability insurance is not needed. As an institution, the Postal Service is self-insured.

The Postal Service officers and governors also have coverage through a personal liability insurance policy that would provide coverage in those situations in which the United States is not substituted as a party. The Inspector General chose not to participate in this coverage. She, however, has her own standard personal liability insurance policy that is available to all federal employees.

10. How do you define "mission critical" and "core business processes"? How will these areas be impacted if you are not ready in time?

ANSWER: The Postal Service defines our "core business processes" as those processes that are required to move the mail (including collection, acceptance, induction, processing, transportation, and delivery), bring in revenue, pay our employees and suppliers, and ensure the safety of our employees. "Mission critical process" is synonymous with "core business process."

Systems are placed into one of four categories: severe, critical, important but not critical, and to be retired or replaced. For purposes of reporting to many external organizations which ask for the status of "mission critical systems," we group and report on severe and critical systems as being "mission critical." Systems are classified as severe or critical if they meet all of the following three conditions: they have the potential for a Year 2000 failure, their failure would have a significant impact on the business, and a feasible workaround solution does not exist.

The Postal Service is keenly aware that we are a contingency plan for many other organizations should their other forms of communication fail. Therefore, we have placed the highest priority on the completion of readiness activities for our core business processes to help ensure that we will be ready on time. We are also developing Component Contingency Plans for our critical components and

Business Continuity Plans for our core business processes to help ensure that we have workarounds in place should we experience failures in these areas.

Failure of a component that supports our core business processes could result in one of the following: delay mail or make the movement of mail more difficult; loss of revenue or increased cost; or a negative impact on customers or Postal Service employees. However, moving the mail relies primarily on our mail processing equipment (MPE) and our thousands of employees. We have done significant testing with our MPE, and the results indicate that the mail will continue to move to and through the Year 2000. We are also in the process of developing plans should it be difficult or impossible for the workforce to come to their place of work. It is important to note that the Postal Service deals quite successfully today with these types of difficulties, albeit on a smaller scale.

11. Will the Year 2000 effort have any effect on future changes in postage rates?

ANSWER: Yes, there could be some effect. The cost of working on Y2K initiatives is an expense of operating the postal system just like any other expense. While we do not expect that Y2K cost alone will be large enough to generate a need for a rate increase, there are two ways in which Y2K costs could affect the size of a rate increase request. First, if any Y2K costs are projected for the test year of a postal rate case, these costs would directly contribute to the revenue requirement.

The second and most likely way in which Y2K costs would affect rate levels would be through the Prior Years' Losses Recovery mechanism. Under the break-even mandate of the Postal Reorganization Act the Postal Service's revenue requirement includes a provision for Prior Years' Losses Recovery. Expenses incurred to support the Y2K program reduce the amount of Prior Years' Losses that will be recovered by current postal rates. The Prior Years' Losses provision in the next rate filing will therefore be higher than it would have otherwise been due to Y2K expense. The impact on rates will be small, however, because Prior Years' Losses Recovery is amortized over a nine year period.

12. Will postage meters work in the year 2000?

ANSWER: Yes. All of the postage meter manufacturers have assurred the Postal Service that all of their meters have been tested to function properly in the year 2000.

13. How many foreign nationals are currently employed by contractors working on your Y2K initiative? From what countries are these contractor employees citizens?

ANSWER: There are 43 foreign nationals from 16 countries working on the Y2K initiative for the following suppliers:

Andersen			EDS		IBM		SRA		Unisys		PRC		Total
1	Australia	1	China	1	Germany	1	Africa	1	Brazil	1	China	2	
2	Brazil	1	India	1	Russia	1	Bangladesh	1	Canada	1	Lebanese	1	
3	Cameroon	1			Switzerland	1	India	1	China	3			
4	Canada	10					Viet Nam	1	India	3			
5	China	1							Singapore	1			
6	Germany	1											
7	Great Britain	3											
8	Hong Kong	1											
9	India	1											
10	Philippines	2											
	Total	22		2		3		4		9		3	43

14. Please describe your process for granting security clearances and providing access to postal facilities and systems to foreign national contract employees? Describe any and all deviations from this process for contractors working on the Y2K initiative.

ANSWER: Foreign national contract employees are permitted access to sensitive information or systems on a need to know basis after completing a security screening and receiving a sensitive clearance by the Inspection Service.

Postal managers and key personnel are responsible for controlling and monitoring contractor access to critical and sensitive information and systems.

Upon receipt of a security clearance request, the Inspection Service Operations Support Group (ISOSG) conducts a number of records checks, including: an inquiry of USPS databases, a National Crime Information Center Wants and Warrants inquiry, and a credit inquiry. The ISOSG also reviews documentation prepared and forwarded by the contractor company, including: the results of local criminal history inquiries, verification of an individual's employment history, and certification that an individual has passed a drug screen test. In the absence of any derogatory or disqualifying information, an interim clearance is granted. At the same time the interim clearance is granted, the ISOSG submits fingerprint cards to the Office of Personnel Management and requests a National Agency Check (NAC). Upon receipt of a favorable NAC response, the final clearance is granted.

Clearance requests for contractors working on the Y2K initiative are directed to specific ISOSG technicians to expedite processing. Some requirements may need to be waived for foreign national contract employees pertaining to the time they lived in other than the United States. Upon issuance of a waiver the Vice President of the requiring activity acknowledges that part(s) of the required clearance process cannot be completed and accepts responsibility for individuals granted a clearance under this exception.

15. Do foreign national contract employees have access to critical or sensitive information or systems? Who is responsible for monitoring these employees to ensure that they are not provided and do not obtain access to critical or sensitive information or systems?

ANSWER: See question 14.

Year 2000 Initiative

Total Contractual Service Expenditures

Through Postal Fiscal Year 1999 AP 7

				Payments					
Finance	Account	Contract	Vendor	97	98	99	Total	AP 7 Accrual	Total
660119	52359000	10259099M1058	ANDERSEN					543,321	543,321
660119	52359000	10259099M0707	ANDERSEN					500,879	500,879
660423	52359000	10259099M0775	IBM					489,683	489,683
660423	52359000	10259099M0922	SAIC					460,515	460,515
660119	52359000	10259099M0819	SAIC					455,914	455,914
660119	52359000	10259098D1083	SCIENCE APPLICATIONS INT CORP		437,959		437,959	-	437,959
660423	52359000	10259099M0853	IBM					436,593	436,593
660119	52359000	10259099M1277	EDS					424,060	424,060
660423	52359000	10259099M0612	SAIC					422,400	422,400
519921	52359000	10259099M1104	SAIC					404,000	404,000
479921	52359000	10259099M1109	SAIC					380,600	380,600
089921	52359000	10259099M1107	SAIC					357,900	357,900
660119	52334000	10259097M1582	PRC INC	192,112	149,076		341,188	-	341,188
079921	52359000	10259099M1111	IBM					339,057	339,057
059921	52359000	10259099M1110	IBM					332,815	332,815
660119	52331000	10259099M0480	EDS			165,321	165,321	162,699	328,020
359921	52359000	10259099M1108	SAIC					324,480	324,480
660423	52359000	10259099M0649	Unisys					314,924	314,924
660119	52339000	10259097I2538	THE PHINEAS CO		181,532	125,684	307,216	-	307,216
660423	52359000	10259099M1056	ANDERSEN					300,558	300,558
660119	52334000	26635198M0271	PRC/AIS INC		290,521		290,521	-	290,521
660119	52359000	10259099M0704	ANDERSEN					286,631	286,631
660119	52331000	10259098D0017	UNISYS CORPORATION		278,619		278,619	-	278,619
660119	52359000	10259098Z0666	PLATINUM TECHNOLOGY INC		275,432		275,432	-	275,432
660423	52359000	10259099M0738	IBM					236,449	236,449
660119	52359000	10259098D1095	UNISYS CORP		32,399		32,399	180,293	212,693
660423	52359000	10259099M0447	Unisys					193,741	193,741
660119	52331000	10259098D2484	SYSTEMS RESEARCH & APPLICATIONS		156,000	37,559	193,559	0	193,560
660423	52359000	10259099M0446	Unisys					186,620	186,620
660423	52359000	10259099M0453	SAIC					183,040	183,040
660422	52359000	10259099M0702	ANDERSEN					176,754	176,754
660423	52359000	10259099M0146	SAIC					176,000	176,000
660423	52359000	10259099M0641	Unisys					173,722	173,722
660119	52334000	26635198M0271	PRC AIS		169,684		169,684	-	169,684
660119	52332000	10259098D1827	DIGITAL EQUIPMENT CORP		162,000		162,000	-	162,000

Year 2000 Initiative

Total Contractual Service Expenditures

Through Postal Fiscal Year 1999 AP 7

				Payments					
Finance	Account	Contract	Vendor	97	98	99	Total	AP 7 Accrual	Total
660119	52359000	10259098D1107	UNISYS CORP		160,915		160,915	-	160,915
660119	52359000	10259099M0905	EDS					159,872	159,872
660423	52359000	10259099M0452	SAIC					154,880	154,880
660119	52321000	10259097Z0325	GARTNER GROUP INC	136,690			136,690	-	136,690
660423	52359000	10259099M0923	SAIC					121,280	121,280
239921	52359000	10259099M1017	EDS					112,974	112,974
660119	52359000	10259095B1669	MANPOWER INC		39,908	72,632	112,540	-	112,540
660423	52359000	10259099M1146	SAIC					109,120	109,120
660423	52359000	10259099M1023	SAIC					98,560	98,560
660119	52331000	10259098M1661	GENERAL TECHNOLOGY INC		95,280		95,280	-	95,280
660119	52331000	10259098D0022	UNISYS CORPORATION		88,074		88,074	-	88,074
660119	52331000	10259098D1624	ORACLE CORPORATION		87,110		87,110	-	87,110
660119	52332000	10259098B0831	UNISYS CORP		87,075		87,075	-	87,075
660347	52359000	10259099M0907	EDS					86,290	86,290
660119	52332000	10259097N2630	MICRO FOCUS INC		81,114		81,114	-	81,114
660119	52342000	10259098D2783	ARTHUR D LITTLE INC		79,796		79,796	-	79,796
660119	52359000	10259099D0523	WANG GOVT SERVICES INC			60,852	60,852	-	60,852
660347	52359000	10259099M0710	ANDERSEN					60,041	60,041
660119	52325000	41273598F2326	LENDVAI AUDIO VISUALS		39,835	16,368	56,203	-	56,203
660119	52359000	10259098M1837	INFORMATION BUILDERS INC		48,292		48,292	-	48,292
660119	52342000	10259098M1962	PRC INC		6,832	40,946	47,778	-	47,778
660345	52359000	10259099M0703	ANDERSEN					47,252	47,252
660119	52359000	10259099Z0441	BELCAN TECHSERVICES			45,828	45,828	-	45,828
660423	52359000	10259099M1229	SAIC					45,760	45,760
660346	52359000	10259099M0890	EDS					45,112	45,112
660119	52359000	10259098M2004	MITRETEK SYSTEMS INC		18,641	16,886	35,527	-	35,527
660119	52359000	41273598P0982	LENDVAI AUDIO VISUALS		26,159	2,804	28,963	-	28,963
660119	52331000	10259098Z2141	NOBLESTAR SYSTEMS		14,500	13,988	28,488	-	28,488
660119	52332000	10259098N0951	MICRO FOCUS		28,280		28,280	-	28,280
660119	52332000	10259098F1826	EDGE INFORMATION GROUP		26,500		26,500	-	26,500
660119	52332000	10259097N2650	MICRO FOCUS INC		5,700	20,362	26,062	-	26,062
660119	52332000	10259097P2616	GENERAL TECHNOLOGY INC	25,000			25,000	-	25,000
660119	52331000	10259095Z1737	ISOGON CORP		23,850		23,850	-	23,850
660119	52359000	10259098D1106	UNISYS CORP		23,398		23,398	-	23,398
660119	52359000	10259098F1162	ISOGON CORP		21,500		21,500	-	21,500

Year 2000 Initiative

Total Contractual Service Expenditures

Through Postal Fiscal Year 1999 AP 7

				Payments					
Finance	**Account**	**Contract**	**Vendor**	**97**	**98**	**99**	**Total**	**AP 7 Accrual**	**Total**
660119	52359000	41273599P0171	MEDIA VISIONS			19,840	19,840	-	19,840
660119	52359000	10259098F0923	EDGE INFORMATION GROUP		18,266		18,266	-	18,266
660119	52359000	10259098F1008	ISOGON CORP		14,990		14,990	-	14,990
660119	52332000	10259097M2310	GENERAL TECHNOLOGY INC		14,751		14,751	-	14,751
660119	52359000	10259098F0564	EDGE INFORMATION GROUP		13,492		13,492	-	13,492
660119	52332000	10259097N2684	PRAXIS INC		13,489		13,489	-	13,489
660347	52359000	10259099M0354	SAIC					10,404	10,404
660119	52331000	10259098X2579	IPFC		9,951		9,951	-	9,951
660119	52332000	10259097N0678	MICRO FOCUS INC	9,569			9,569	-	9,569
660119	52332000	26635198M0482	PRC AIS		8,856		8,856	-	8,856
660119	52359000	10259098D1100	UNISYS CORP		6,642		6,642	-	6,642
660119	52359000	33566099X0227	REAL ESTATE ASSET MGMT SRVS INC			5,000	5,000	-	5,000
660423	52359000	10259098D2429	Unisys					4,730	4,730
660423	52359000	10259098D1115	IBM					3,652	3,652
660119	52359000	26635197P1004	TEK SYSTEMS			3,297	3,297	-	3,297
660119	52359000	26635198M0482	PRC/AIS INC		(8,856)		(8,856)	-	(8,856)
				958,974	40,337,484	39,087,504	80,383,962	72,187,245	152,571,206
PRC 3V AP's 1-7 FY 1999									4,144,344
FY 1998 3V (est.)									5,202,168
Total									161,917,718

Mr. McHugh. Thank you, Mr. Lorentz.

Before we proceed to questioning, I just want to acknowledge we have been joined by three members of the Technology Subcommittee which, at the moment, is leading for the well-attended prize—Mrs. Morella, great job. In the order in which they came into the room; the gentlelady from Michigan, Ms. Stabenow—Debbie, welcome—Bart Gordon, gentleman from Tennessee—Bart—and David Wu, gentleman from Oregon. We thank you all for being here with us. Oh, also, gee, a fellow-New Yorker and the dean of the New York delegation—I will really get in trouble. [Laughter.]

We have been joined by my dear friend, Ben Gilman, chairman of the International Relations Committee, as well. Mr. Chairman, good morning.

Mr. Gilman. Good morning. Thank you for conducting this hearing, and I was very much concerned with Y2K.

We have just met with a number of our European parliamentarians and they, too, are very much concerned around the world of how this will affect all services, all governmental services, as well as the industry. We are all very much concerned about this sensitive program, and certainly the Postal Service which affects so many of our citizenry all over the country. It plays an important part in what we are going to be doing.

So, I regret I wasn't here at the start of this hearing, but I will look over the testimony, and we are hopeful that our Postal Service will be able to do whatever has to be done to be prepared for the year 2000.

Thank you, Mr. Chairman.

Mr. McHugh. I thank the gentleman. Again, I thank him for being here.

If the old adage, "a little knowledge is a dangerous thing," is true, I am a very dangerous man, because this is an incredibly complex situation, as all of you know so very well.

I just want to start with a couple of general questions and, then, move to those who have been working on those subcommittees that are far more conversant with the specifics of the problems than I am.

But one of the things—as I took time out over the weekend to read your statements—I couldn't help but being impressed by, was the enormity of this situation facing the Postal Service. Mr. Lorentz spoke of just about 100 million lines of computer code; both the IG and Mr. Brock spoke about the thousands upon thousands of suppliers, both critical and less so, and the interfacing of the Postal Service with corporations and companies that are so essential—be they airline or otherwise—and yet, by most measures, are beyond their direct control. Fifty-three percent of the suppliers responded in all, to a survey the Postal Service very correctly tried to conduct to try to assess their Y2K compliancing.

The thing that seems to strike me as I look at what we see the numbers to be and what has to be achieved in the next 311 days, and less an hour that we have been here this morning, is the enormity of the task. And I am not convinced that, even if everything went perfectly and everything humanly possible was done, that we could meet this challenge. I would be interested to see what your assessment of that is.

Are we in a process where we are attempting to minimize the likelihood of disaster or, do we really—and "disaster" is an overstatement, the likelihood of significant interference and interruption—or are we truly in a position, still, to fix this problem to the highest possible extent?

I will just begin with the order in which you testified and sit back and listen.

Ms. CORCORAN. I believe that the Postal Service has a challenge, as I mentioned earlier. What we recommended, as we were going through our testimony, is that they need to refocus their resources to make sure that they are dealing with those processes that are most important to moving the mail, paying their bills, protecting revenue, and protecting the life and safety of their employees and customers.

Postal is now moving in that direction, and they are continuing to decrease the number of systems and equipment that they have to fix.

As long as they stay focused on really making sure they get to those that are critical, hopefully, there is a chance. But, again, they need to have contingency plans and all these other things done to make sure that if something doesn't work, that they have an alternative.

Mr. MCHUGH. Mr. Brock, you mentioned in your testimony that, with the possible exception of the Defense Department, no Government agency faces a Y2K problem as complex as the Postal Service. I guess if DOD is not prepared, we lose the war. If the Postal Service isn't prepared, the Social Security checks don't go out. As an elected official, I am not sure which I would prefer. [Laughter.]

So, how do you assess their ability to get to the end successfully? And just an added twist for you, how might you compare the Postal Service's progress to a DOD, for example?

Mr. BROCK. That is a difficult question because it is an "apples" and "oranges" kind of question. Nevertheless, I will answer it. [Laughter.]

One of the reasons that I personally want to make sure that the Department of Defense is ready, it is like an insurance policy. Even if we are not engaged in a war, hostilities—as you want that insurance policy, you don't want it to lapse; you want it in place.

The Postal Service, as I mentioned earlier, is a utility; it has to work. So, I want it to work as well. So it is important that both work.

One of the challenges at many agencies is that their primary objectives are carried out through transaction processing. You know, you write checks; you distribute checks; you either mail them or you send them electronically. But with both the Postal Service and DOD, you have a whole series of logistical operations that you have to carry out as well, as well as making sure that thousands and thousands and thousands of facilities are going to be ready. So, it is pretty complex.

The issue that we would have with the Postal Service—to get back to your original question—in terms of increasing assurances, that they will be able to provide an acceptable level of service, is to not only focus on remediating the systems, but increase focus on the contingency plans and to really scrub those down. A contingency plan, or a business continuity plan, should be more than a piece of paper. It really needs to define what an acceptable level of process is, and that may be delivering mail at the same level, or it may be, in fact, changing your standards for a period of time and saying, "This is the level of service we would be willing to accept." It means taking a look at all of those processes—systems and suppliers and things—that support that business operation and doing a sort of a risk analysis, "And what are the risks that this will fail?"—and then, funding it. I will just give you sort of an extreme example.

If you, in fact, assume that first-class mail delivery had to meet the current standards, and you had no certainty that some of your key suppliers or some of the key infrastructures, such as telecommunications or electrical power, would be ready; you would, in fact, have to develop a very expensive contingency plan to make sure that was funded.

So, these are business decisions where a lot of pros and cons need to be weighed. I think this is where the crunch is going to come this summer with the Postal Service. And really scrubbing these plans and having a level of assurance that is shared by their stakeholders—and I would include the Oversight Committee as a stakeholder, as representing the American public—that, in fact, these are acceptable levels of service and that, in fact, the provisions are made to supply that level of service are acceptable.

Mr. McHugh. Thank you.

Mr. Lorentz, no pressure. [Laughter.]

Are you going to make it? [Laughter.]

Mr. Lorentz. We are very confident with the amount of planning and the process approach that we are taking, and the use of some of the best resources money can buy, that we will be in position on January 1, 2000, to move the mail.

We are focusing, specifically—getting back to the Inspector General's point—we are focusing, specifically, on the processes that are directly involved with moving the mail, with collecting revenue, with paying bills, and most importantly, with protecting the safety of our employees. So, when you compare the other processes relative to those, those are the ones we are focusing on, moving into the year 2000.

Mr. McHugh. Thank you.

We have, as I said, other members here far more conversant in these things than I am.

I have a number of other questions, but, at this time, I am happy to yield to the gentlelady from Maryland, Mrs. Morella, for any questions she might have.

Connie.

Mrs. Morella. Thank you, Mr. Chairman.

I think you have been asking great questions, and I appreciate hearing from our parties here who are very much involved in the postal system.

One of the questions I wanted to ask has to do with the international operation of the mails. I was recently in Indonesia, but I don't think they know what Y2K is. And then even in Tokyo, members of the Diet didn't seem cognizant of the impact of it. Now we are going to want to communicate, by virtue of the mails, also to our international partners and countries, and I just didn't see anything really in your statements that gave me any lead in terms of how you are going to be handling that. I wondered if you would address that.

All three of you, or anyone who wants to.

Mr. LORENTZ. OK. I guess I will start first, seeing as we are the ones doing the interfacing, and I would like my friends here to participate as well.

There are really three classifications of international players here. There are the large industrial nations like Canada, the UK, France, and Germany, that are probably as prepared as we are. There is a group of large nations like Brazil and China that are less automated, less mechanized, and while they—it is a double-edged sword—while they may have less mitigation or remediation issues, they have another set of problems. Then there is the less industrialized nations. And we do participate in forums in the Universal Postal Union. There are 200 postal administrations that actually participate in looking at, and trying to share information from the common interest and the member readiness.

And, Nick, you might want to speak on any other issues.

Mr. BARRANCA. If you look at the international mail volume that we originate and we process from the rest of the world, our systems are being remediated and plans are being developed so that we will deal with the originating international mail in this country in the same way that we will deal with our originating domestic mail.

We will also be prepared to process incoming international mail in the same way that we will process and deliver our own originating mail for this country.

As Norm indicated, there are two international organizations that are dealing with the Y2K problem from an international standpoint. It is the UPU, the 200 countries that participate in that forum. It is an issue on their agenda. There is also the International Postal Corp., which is 21 industrial postal administrations around the country that has the Y2K issue on their agenda. We are participating in those discussions.

From a country standpoint, as Norm indicated, those countries that rely on automated systems, which are those handful of large, industrialized countries, are dealing with the issues in the same way we are. Those countries that actually depend more on manual systems to process and deliver their mail, the problem is not as significant—I don't want to minimize it. It is not as significant as those that rely on automated systems, because the world doesn't change to a great extent, in that their systems are basically manual now. So——

Mrs. MORELLA. Are we offering any assistance to any of these countries through these two international organizations or individually?

Mr. BARRANCA. We are an active participant in these two organizations and their committees. Our international business unit is involved in those discussions. I can't tell you exactly what the nature of their involvement or their details are. I would be happy to make that available for the record in the future.

Mrs. MORELLA. That would be great.

And do you have contingency plans for the international mail?

[The information referred to follows:]

DEBORAH K. WILLHITE
SENIOR VICE PRESIDENT, GOVERNMENT RELATIONS

UNITED STATES
POSTAL SERVICE

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September 28, 1999

Honorable John M. McHugh
Chairman
Subcommittee on the Postal Service
Committee on Government Reform
House of Representatives
Washington, DC 20515-6246

Dear Mr. Chairman:

This information is submitted in response to questions for the record in connection with the February 23 joint hearing regarding the Postal Service's Year 2000 initiative.

The Postal Service has identified both critical and important-but-not-critical electronic data exchanges with external business partners. Critical exchanges and their status follows:

- Federal Reserve:

  Simulation tests of Postal Service payroll and payment systems with the Federal Reserve were successfully executed. Tests involving interface with the Minneapolis Federal Reserve Bank took place in January, February, and April, 1999. Interface testing with the St. Louis Federal Reserve Bank occurred in July, 1999.

- Citibank:

  Successful operational tests were completed in May, 1999 for end-to-end flow of postage meter setting transactions and their accounting.

- Postage Meter Manufacturers:

  Successful operational testing was completed with three of the four postage meter manufacturers during May, 1999 and June, 1999. We have scheduled testing with the remaining meter manufacturer for early October, 1999, following completion of its system changes.

We have also identified 114 important-but-not critical external data interfaces. Following inventory, assessment, and testing of these interfaces, all 114 have been verified as able to operate properly through the Year 2000 date change.

As indicated in Mr. Barranca's testimony, the United States Postal Service is working with foreign postal administrations in mutual preparation for the transition to the new year. We have been working through both the Universal Postal Union, the formal association of the world's postal administrations, and through the International Post Corporation, an independent entity comprised of the 21 world postal administrations most heavily dependent on automated and computerized systems.

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Within the context of the Universal Postal Union, our primary role has been to assist in raising the awareness of Year 2000 issues among the entire international postal community. Efforts include participation in the creation, completion, and analysis of surveys addressing readiness of postal administrations, and participation in the creation and distribution of awareness circulars among the administrations. We have also been involved in discussions in various forums, including the Union's Technical Standards Board and, through the Union's International Bureau, high-level contact with senior management of member postal administrations.

Through the International Post Corporation, we have been involved in paired system tests. This involved ten pairings, facilitated by the Corporation's Computer Aided Post—EDI group, of various automated member posts. The basic premise defining this testing was that if Year 2000 compliance could be established between the paired countries, compliance could be assured with all. The United States Postal Service successfully tested with the posts of Great Britain and Canada.

I appreciate having the opportunity to provide you with this information regarding our Year 2000 preparations. Should you have any additional questions, please let me know.

Sincerely,

for Deborah K. Willhite

Mr. BARRANCA. Our contingency plans for collecting, processing, and transporting mail that originates in this country are the same, regardless of whether the destination of that mail is here in this country or international destinations. We will be prepared to collect, process, transport, and move it to the international destination.

For international mail originating outside of this country to be delivered here, we have contingency plans to deal with that volume in the same way that we deal with our originating domestic mail.

Mrs. MORELLA. If I send a letter to Korea and then a letter is sent to me from Korea, which will reach its destination?

Mr. BARRANCA. If you send a piece of mail to Korea, we will get it to Korea.

Mrs. MORELLA. You will get it there.

Mr. BARRANCA. To the extent that the Korean postal administration will get it to the address in Korea is what the UPU and—not in Korea's case—the ICP is dealing with.

Mrs. MORELLA. And Kim wants to send something to us, and we will get it?

Mr. BARRANCA. As long as it gets——

Mrs. MORELLA. Through the mail?

Mr. BARRANCA [continuing]. To this country, we will get it delivered; yes.

Mrs. MORELLA. Could I just ask you—I know that the end-to-end stuff is very difficult, and I won't spend much time on it, but I hope you will look to addressing that because of your many connections, your many contractors that are all involved. On March 9th, we are going to have a hearing on liability. I am curious about whether the postal system could be subject to any liability suits or issues.

Mr. LORENTZ. I am not aware of that issue. I do know there were some contractual issues that we had relative to supplier liability.

Rick, you may want to address that.

Mr. WEIRICH. We have continued to look at this emerging issue of everyone managing their potential liability in year 2000. We are having difficulty getting some of our supplier data, although some of the changes that you all have made certainly have helped in that regard.

I am not an expert on whether we might be liable under the statutes. I would have to bring our General Counsel to answer those questions though.

Mrs. MORELLA. But I think you are also saying, though, that with suppliers you find that there is sort of a chilling effect for fear that there could be liability suits. And, of course, there are those who speculate that that cottage industry of lawyers could end up costing more than remediation of the Y2K problem. It is something we need to look at, not to give any waivers, but to look at, in terms of what we can do, to make it be a more encouraging information and data exchange and working together.

I like the idea that we have got the Inspector General and GAO working with the Postal Service. I think that is the kind of union that there should be.

And I think you wanted to make a comment, Ms. Corcoran.

Ms. CORCORAN. Madam Chairman, we have done an audit report, or an advisory report, where we did look at some contractual issues. We would be happy to share these with you.

[The information referred to follows:]

Karla W. Corcoran
Inspector General

September 24, 1999

The Honorable John M. McHugh
Chairman, Subcommittee on the Postal Service
Committee on Government Reform
2157 Rayburn House Office Building
Washington, DC 20515-6143

Dear Chairman McHugh:

Attached is a copy of our management advisory report "Year 2000 Initiative: Review of Administration" that Representative Constance Morella requested at the February 23, 1999, Year 2000 hearing. The report identifies opportunities for Postal Service management to improve oversight of the Y2K program and controls over contractor performance and payments.

If you have any questions or need additional information, please contact our Acting Director for Congressional and Public Relations, Ms. Laura Whitaker, or me at (703) 248-2300.

Sincerely,

Karla W. Corcoran

Karla W. Corcoran

cc: The Honorable Constance A. Morella, Chairwoman, Subcommittee on Technology, Committee on Science
The Honorable Stephen Horn, Chairman, Subcommittee on Government Management, Information and Technology, Committee on Government Reform

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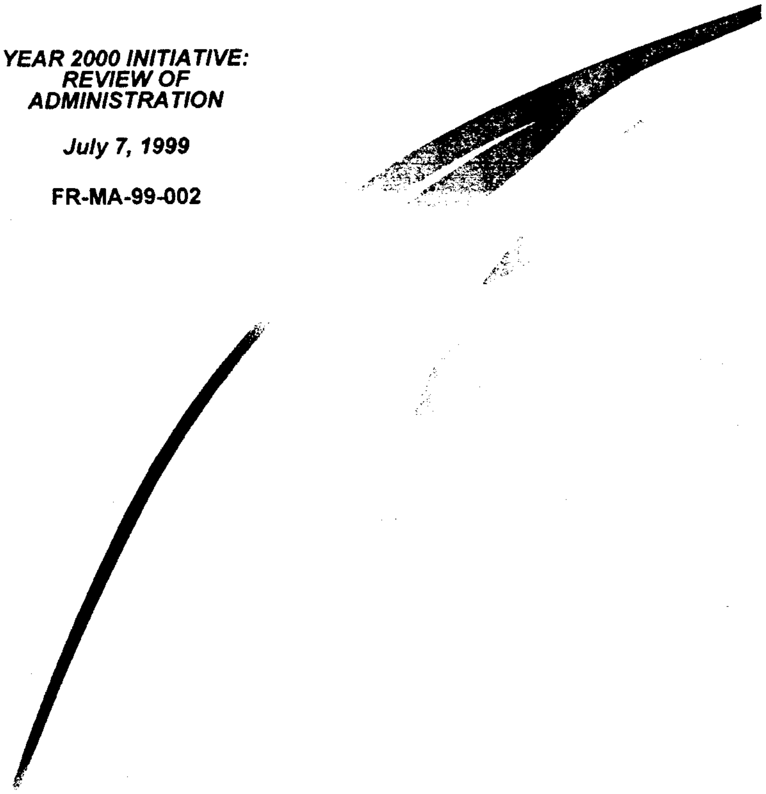
YEAR 2000 INITIATIVE: REVIEW OF ADMINISTRATION

July 7, 1999

FR-MA-99-002



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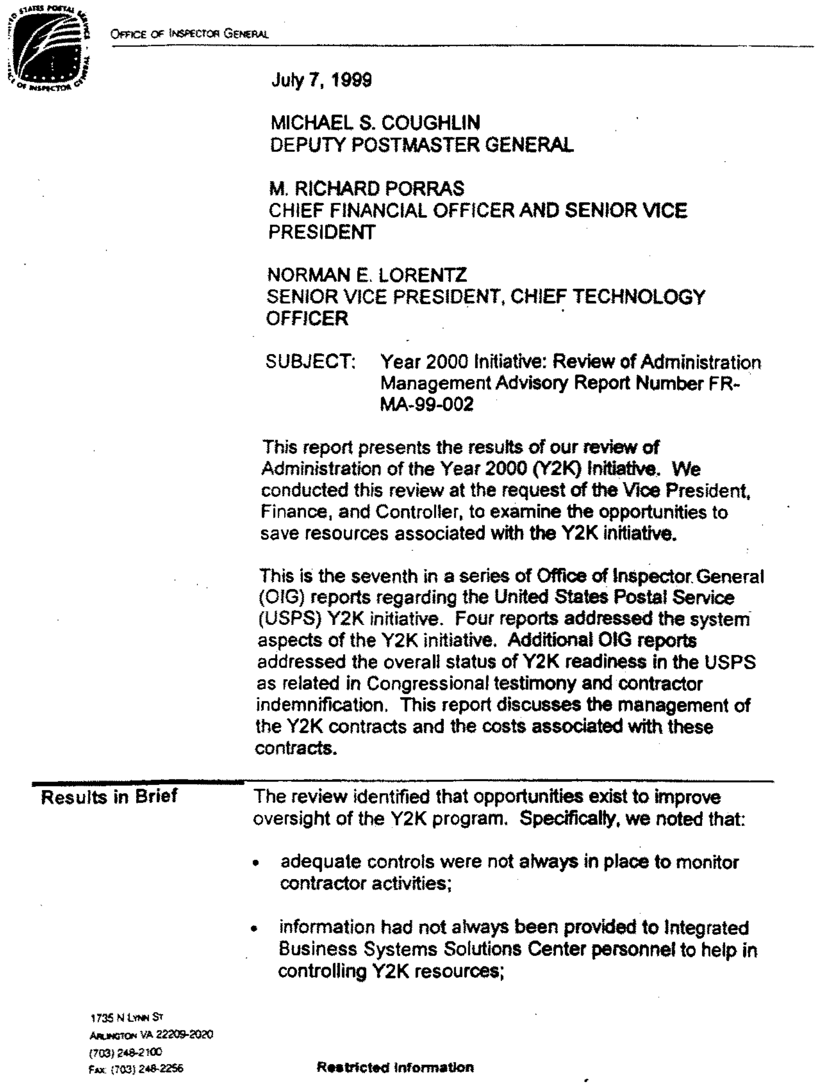

Office of Inspector General

July 7, 1999

MICHAEL S. COUGHLIN
DEPUTY POSTMASTER GENERAL

M. RICHARD PORRAS
CHIEF FINANCIAL OFFICER AND SENIOR VICE PRESIDENT

NORMAN E. LORENTZ
SENIOR VICE PRESIDENT, CHIEF TECHNOLOGY OFFICER

SUBJECT: Year 2000 Initiative: Review of Administration Management Advisory Report Number FR-MA-99-002

This report presents the results of our review of Administration of the Year 2000 (Y2K) Initiative. We conducted this review at the request of the Vice President, Finance, and Controller, to examine the opportunities to save resources associated with the Y2K initiative.

This is the seventh in a series of Office of Inspector General (OIG) reports regarding the United States Postal Service (USPS) Y2K initiative. Four reports addressed the system aspects of the Y2K initiative. Additional OIG reports addressed the overall status of Y2K readiness in the USPS as related in Congressional testimony and contractor indemnification. This report discusses the management of the Y2K contracts and the costs associated with these contracts.

Results in Brief

The review identified that opportunities exist to improve oversight of the Y2K program. Specifically, we noted that:

- adequate controls were not always in place to monitor contractor activities;
- information had not always been provided to Integrated Business Systems Solutions Center personnel to help in controlling Y2K resources;

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- work products provided by contractor personnel were not always timely or adequate;
- the numbers or expertise of contractor personnel assigned at various site locations did not always correspond to the amount of work needed. Additionally, the layers of contractor managers were unnecessary in certain instances;
- contractor personnel did not always timely submit documentation for proper security clearances. In addition, local Postal management was not always aware that certain contractor employees had received security clearances; and
- a Y2K contractor was permitted to deviate from USPS travel regulations.

We offered USPS management eight suggestions that provide opportunities to save resources.

Summary of Management Response

Management noted that the revised report more accurately represents the budget, management structure and responsibilities of the Integrated Business Systems Solutions organization than the initial draft report. However, management voiced the opinion that the report did not reflect the substantial input they provided in writing and in discussions to the OIG during and subsequent to the initial release of the draft report.

Despite their concerns, management indicated that they concurred with and have planned or taken action to address the eight suggestions in this report. We summarized these responses in the report and included the full text of the comments in the Appendix.

Evaluation of Management Response

Management's responses were generally responsive to the issues raised in the report and the corrective actions implemented or planned should provide opportunities to save resources. However, management's reply was not responsive to our suggestion to analyze the process of granting security clearances to contractor personnel to ensure that security clearances are granted in a timely manner.

Background

USPS's original budget estimate for the entire Y2K initiative was between $500-670 million. In April-May 1998, an initial budget of $255 million was developed for FY 1999. In August of 1998, a zero-based budget of $340-350 million was developed for FY 1999. The USPS Controller approved a budget of $159 million. Based on expenditures during the first quarter of fiscal year FY 1999, Postal officials became concerned that total Y2K expenditures for FY 1999 would significantly exceed the budgeted amount. USPS continues to revise the estimate and funds required on a monthly basis and stated that this budget will remain fluid through the year 2000. During our review, USPS management revised its FY 1999 Y2K budget to $274 million.

The Y2K problem results from the way computer systems store and process dates. In many systems, the year 2000 will be indistinguishable from 1900, thereby causing potential system failure.

In 1998, USPS used automation and information systems to deliver 198 billion pieces of mail, maintain its nationwide network of over 38,000 post offices and facilities, and pay its more than 775,000 career employees. This dependency on automation makes USPS highly susceptible to the Y2K problem. As a key element in our nation's communication and commerce infrastructure, its preparedness may be crucial to the nation's Y2K readiness. Both the private sector and government may rely on USPS as a contingency if their systems fail on January 1, 2000.

In 1993, the USPS Vice President for Information Systems provided guidance for solving the Y2K problem within USPS. Initially, only one USPS headquarters organization, Information Systems, was committed to, and engaged in, a solution even though it was a Postal-wide problem. In 1995, USPS established a two-person Y2K program office. In 1997, USPS expanded the program office to 12 people and selected an Executive Program Director, who reported to the Vice President of Information Systems, to lead, manage, and report on the Y2K Initiative. During this time, USPS recognized the scope and complexity of the Y2K challenge, and hired contractors to assist in managing and correcting the problem. The status of the Y2K Initiative as of April 30, 1999, was as follows:

- USPS management identified 141 computer applications that were severe and/or critical to its operations. USPS management has certified 131 of 141 (93 percent) applications as remediated. Management reported that remediation of 124 of the 131 (88 percent) certified severe and critical applications has been independently verified.

- USPS management has certified 251 out of 282 (89 percent) important but not critical applications as remediated. Out of these applications, 65 out 74 (88 percent) Tier 2A applications were verified as remediated.

- USPS management has certified 30 of 38 (79 percent) types of Severe/Critical Mail Processing Equipment as being Y2K compliant. In addition 835 of 2,269 (37 percent) suppliers critical to USPS have been classified as either Y2K ready or expected to be ready.

The management of information systems in the field is organized into business area portfolios. Portfolio managers serve as functional Chief Information Officers to control delivery of work performed, issues related to budget, and assignment of projects to Integrated Business Systems Solutions Centers.

The Vice President, Information Systems, is accountable to the USPS Management Committee on all Y2K activities. The Vice President, Information Systems, established a Program Management Office responsible for leading, managing, and reporting on the Y2K initiative. The Program Management Office periodically provides USPS senior management briefings on the status of Y2K and submits reports to the Office of Management and Budget on a quarterly basis. USPS managers are absolutely accountable and responsible for completing key Y2K readiness activities on schedule. The Vice President, Finance, and Controller, has overall responsibility for funding the Y2K initiative and controlling the costs.

Objective, Scope, and Methodology

The objectives of our review were to determine whether: (1) Y2K resources were properly allocated to ensure that projects were completed timely and adequately; (2) contract terms were reasonable and billings were in accordance with contract terms; and (3) project tasks were necessary for ensuring Y2K compliance.

We interviewed management and operating officials, reviewed contract files, analyzed contract information, obtained system documentation, and reviewed various management reports relating to Y2K. We conducted our review from December 1998 through March 1999 in accordance with the President's Council on Integrity and Efficiency, *Quality Standards for Inspections*. We discussed our conclusions and observations with appropriate management officials and included their comments, where appropriate.

Observations

Contractor Oversight

Y2K contractor oversight needed improvement. Responsible USPS individuals did not always implement adequate controls to monitor contractor activities. As a result, there is a reduced level of assurance that USPS resources are being expended for valid or necessary tasks of Y2K projects

Purchasing Manual, Issue 1, Section 6.1.1.c, dated January 31, 1997, states that USPS personnel involved in contract administration should direct their efforts to meet contract objectives, including monitoring costs and other activities intended to ensure compliance with contract terms. Section 6.2.3.a continues that, in addition to appointing representative (see section 6.1.1.b), the contracting officer may name one or more representatives to coordinate the activities of other representatives or to provide technical direction.

The following issues were brought to our attention during discussions with USPS personnel:

- USPS headquarters personnel did not task Integrated Business Systems Solutions Center personnel to monitor contractor employees' time and job assignments;
- USPS officials did not always monitor the activities of contractor personnel at USPS and non-USPS facilities to know which contractor employees were working on what projects; and

- Integrated Business Systems Solutions Center personnel were not fully empowered to monitor contractor employees working on projects for which they were responsible.

Portfolio managers monitored the contracts by deliverable milestones. However, monitoring by deliverables did not always assure that the project was completed in an efficient manner (i.e., contractor personnel reworked tasks, did not work on their assigned tasks, or were not fully employed). To identify contractor employees and ensure the reasonableness of their time charges to Y2K projects, USPS implemented the Program Cost Tracking System in early 1999. This initial step was taken to improve the monitoring of Y2K contractor charges.

We also found that USPS headquarters and contractor personnel generated tasks subsequent to the completion of independent verification. The purpose and necessity of these tasks were not communicated to Integrated Business Systems Solutions Center personnel. The following examples were brought to our attention by USPS Personnel:

- a contractor generated a list of over 50 questions requesting documentation not included as part of certification packages submitted for postage meter modules. The list was sent to an Integrated Business Systems Solutions Center manager for completion; however, the purpose of the questionnaire was not understood. Other Integrated Business Systems Solutions Center personnel said their verification/certification was not adversely affected when they did not complete the questionnaire. Completion of the questionnaire required significant contractor and Integrated Business Systems Solutions Center employee resources;

- two contractors were requesting similar information on USPS hardware and software components from Integrated Business Systems Solutions Center employees. In addition, much of the information was already generated as part of the Y2K initiative. The unwillingness of the two contractors to cooperate and share information resulted in additional work for both contractor and Integrated Business Systems Solutions

Center personnel; and

- a contractor requested Integrated Business Systems Solutions Center personnel to verify a listing of external interface files. Integrated Business Systems Solutions Center personnel identified errors and provided suggested revisions. However, subsequent contractor listings were not revised, and the contractor continued to request that Integrated Business Systems Solutions Center personnel verify the listing. At the time of our review, this listing was still not accurate, and Integrated Business Systems Solutions Center employees are unsure of its purpose.

Resource Management Oversight

Integrated Business Systems Solutions Centers provided resources for remediation of systems to the responsible portfolio managers. However, Integrated Business Systems Solutions Center personnel were not always aware of resource constraints. Although portfolio managers sometimes shared resource information as a courtesy to the Integrated Business Systems Solutions Center personnel, emphasis was not placed on managing the dollar resource limitations. Consequently, there was a reduced level of assurance that resources were expended effectively.

Since the portfolio managers were generally not located where the Y2K remediation occurs, they require input from the Integrated Business Systems Solutions Center personnel to better monitor the resources amounts. We noted that the Integrated Business Systems Solutions Center is now providing input into the resource process. These new procedures were needed to provide assurance that USPS personnel properly manage expenditures to the budget.

Contractor's Work Processes

Contractors did not always meet commitment dates for work products. In addition, the contractors provided information that sometimes contained errors or was incomplete. Contractor delays and errors caused contractor or USPS employees to perform repetitive work. Specifically:

- at one Integrated Business Systems Solutions Center, a contractor was responsible for performing source code scans to search for date fields to determine the scope of work required. In November 1998, the contractor advised Integrated Business Systems Solutions Center officials that the source code scans would be performed at a local contractor facility with completion to take five days or less. This commitment was not met, and a month elapsed with little progress. As an alternative, the contractor attempted to perform manual source code scans, but the magnitude of the effort prohibited the contractor from completing the source code scans timely. Similar situations have occurred with this contractor that extended the time to complete the code scan efforts timely and proceed with remediation efforts;

- the delay in the preceding instance caused the target completion dates for another application to slip approximately two months. The source code for this application was provided to the same contractor but was not scanned at the contractor's facility until one month later. At that time, the contractor discovered that its equipment could not read the source code. The contractor subsequently requested that USPS employees provide the source code again in an alternate format. It was not until the third attempt that the contractor was successful;

- another contractor responsible for performing source code scans for different applications did not meet committed completion dates. In one instance, a week after the agreed upon completion date, the contractor's lead project coordinator committed to take action to complete the source code scans. However, the coordinator started a three-week vacation and, upon return, the source code scans still were not complete. The contractor completed the source code scans approximately two months after scheduled completion; and,

- the same contractor created and delivered system test scripts that contained several errors. Integrated Business Systems Solutions Center personnel returned the package with comments regarding necessary corrections. A review of the second package disclosed that the quality was only marginally better than the first, and the test script still was not in a useable format. Integrated Business Systems Solutions Center personnel, with other contractor personnel, prepared the third and final test script to expedite the process of forwarding it to the independent verification group.

Contractor Personnel Utilization

Portfolio managers did not always coordinate and/or communicate with appropriate Integrated Business Systems Solutions Center personnel prior to placing contractor personnel at the site. The portfolio managers did not believe it was necessary to coordinate with the Integrated Business Systems Solutions Center before sending contractor personnel to the Centers. However, contractor employees were sent for specific work assignments at the Integrated Business Systems Solutions Centers, but the timing or numbers of personnel assigned did not always correspond with the existing workload. The placement of contractor employees at Integrated Business Systems Solutions Centers without the input of center managers resulted in unnecessary Y2K contract costs.

The following are examples of this condition:

- Integrated Business Systems Solutions Center personnel stated that approximately eight contractor employees were deployed to a site to work on the Y2K initiative for Postage Meters Systems when only two employees were needed at that time. The employees were sent based on the contract schedule rather than the project progress to date. Since contractor employees did not live in the vicinity, travel was required. Integrated Business Systems Solutions Center personnel eventually coordinated with contractor management to remove the unnecessary employees;

- a contractor with expertise in COBOL was assigned to the Y2K initiative for the Centralized Meter Licensing System applications even though only two programs for that system were written in that language. This contractor employee was sent to the Integrated Business Systems Solutions Center without consulting site management regarding the criticality of programs or resource requirements. Integrated Business Systems Solutions Center personnel coordinated with contractor management to eventually remove the employee; and
- during the independent verification process, completion dates for certain Meter Accounting and Tracking System tests were extended from mid-January to late February 1999. Headquarters personnel did not communicate this change to the contractor, resulting in contractor personnel being placed at the Integrated Business

Systems Solutions Center prior to being needed.

About one year ago, Integrated Business Systems Service was reorganized into the Integrated Business Systems Solutions office to include a group of portfolio managers. These managers were responsible for the systems in each of the four business areas: mail operations, marketing, enabler, and finance. The portfolio managers assumed responsibility for the Y2K project from the Integrated Business Systems Service Center directors in late 1998 and early 1999. USPS management stated that Integrated Business Systems Solutions Center personnel are process, work product quality, and resource managers for the work they are assigned. Integrated Business System Solutions Center management and personnel were not accountable for the success of the Y2K effort; they were resources working on Y2K projects along with suppliers selected by the portfolio managers to work, in some instances, with Center personnel.

Further, the layers of contractor managers were unnecessary in certain instances. The use of multiple levels of management resulted in unnecessary Y2K contract costs.

- the number of Y2K program management contractor personnel located in Washington, DC, was disproportionate to the numbers located at field sites. While the majority of the work is performed at field sites, 159 of the 231 (69 percent).

- Y2K program management contractor personnel were located in Washington, DC. (See Chart 1 for details.)

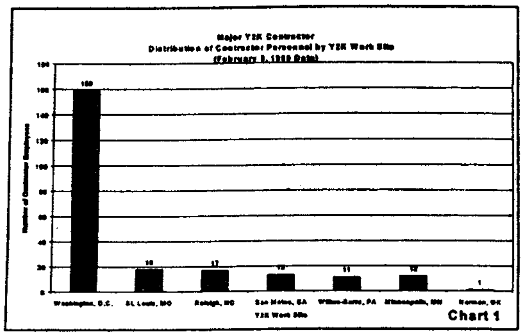

Chart 1

Further, these 159 contract personnel located in Washington, DC, were responsible only for program level work to support the business owners and portfolio managers located at USPS headquarters. (See Chart 2.)

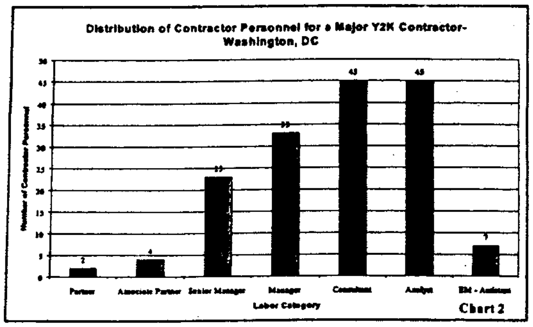

Chart 2

- multiple layers of contractor management were placed on teams that supported Y2K projects at a Integrated Business Systems Solutions Center:

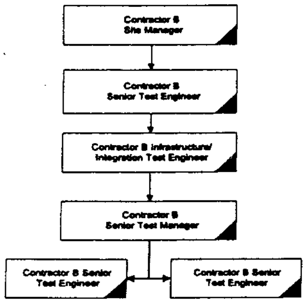

Figure 1

- in one instance we noted that four managers were directly or indirectly supervising the work of two employees. (See Figure 1.) Management eliminated one manager and reassigned another. However, two levels of management remained to supervise directly or indirectly the two employees. (See Figure 2.)

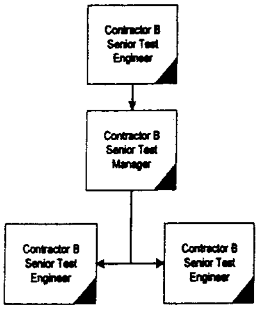

Figure 2

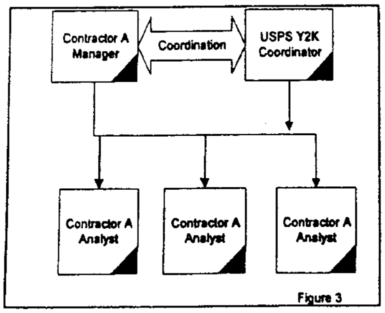

Figure 3

Integrated Business Systems Solutions Center officials advised that USPS and contractor personnel were working to consolidate this contractor's managerial responsibilities with those of another contractor manager.

Contractor Personnel Clearances

Contractor personnel did not always timely submit documentation for proper security clearances. In addition, local Postal management was not always aware that certain contractor employees had received security clearances. These personnel were not permitted to access the Mainframe and, therefore, could not perform certain contract tasks related to their expertise.

Section 272.311 of *Administrative Support Manual* 12, dated June 1998, requires contractor employees to obtain a clearance from the USPS when those employees have access to occupied postal facilities and/or to postal information and resources. Section 272.345 allows contractor employees who need a sensitive clearance to gain access to postal facilities as long as documentation sufficient for a non-sensitive clearance is provided. Specific issues we noted included:

- as of January 19, 1999, at least 21 Y2K contractor employees were working without at least an interim sensitive clearance. This occurred, in some instances, because the contractor failed to submit the appropriate documentation timely. These employees started working as early as June 1998. We also identified nine contractor employees that had received a clearance but the local service center did not receive the information.

In addition, we identified contractor employees that received interim sensitive clearances up to six months after being hired; and

- additional contractor employees had been "rolled on" (hired), worked for 2 to 4 months, and then "rolled off" (terminated) before receiving an interim or final sensitive clearance.

Furthermore, without interim sensitive clearances, a risk exists for security breaches to occur (e.g., unauthorized use of another contractor employee's LOGON identification and password). Additionally, the USPS paid for contractor employees' time even though they may not have been fully productive.

It should be noted that in at least one Integrated Business Systems Solutions Center, USPS management took action to remove contractor employees that did not have the minimum interim security clearance. While this was a positive step, USPS should disallow payments for contractor employees without a sensitive security clearance to perform contractual Y2K tasks. USPS should also find productive work for contractor personnel to perform while awaiting their clearances.

:ontractor Travel

Certain travel concessions were made for a Y2K contractor that deviated from USPS regulations. Personnel at various Integrated Business Systems Solutions Center disclosed that these concessions affected USPS employee morale and hurt working relationships.

This contractor was allowed weekly travel home whereas USPS travel regulations allow one trip home every three weeks. In addition, USPS negotiated a contract modification with this contractor that provided for fixed amounts for certain travel expenses. These include subway or cab fare without documentation, and a fixed amount for trips to the airport and car rentals.

USPS needs to consistently apply its procedures with employees and contractors.

Suggestions and Management Comments

Suggestion

The Vice President, Information Systems in conjunction with the Vice President, Purchasing and Materials should:

1. Improve contract management by
   - including Integrated Business Systems Solutions Center management leadership in contractor-monitoring duties for Y2K projects;
   - providing USPS monitoring of all contractor activities, both at USPS and non-USPS facilities (when practicable); and
   - ensuring that USPS personnel responsible for Y2K projects continue to evaluate the reasonableness of contractor employee time charges entered into the Program Cost Tracking System.

Management Comment

Contracting Officer's Representatives have provided training on the contracts and roles, responsibilities, and functions of contractor monitoring by postal managers at each Integrated Business System Solution Center. In addition, procedures for performing detailed analysis and audit of each invoice have and will continue to ensure reasonableness of time charged to USPS contracts.

Evaluation of Management Comments

Management's comments are responsive to our suggestion.

Suggestion

2. Analyze all post-certification Y2K tasks to ensure that they are necessary.

Management Comment

The Postal Service Program Plan has been reviewed and approved by the Year 2000 Executive Council and the costs and the benefits of each planned activity have been considered to ensure each activity is necessary. Additionally, USPS management will continue to require independent verification for applications categorized as Severe/Critical. Independent verification of Mail Processing Equipment and other selected Y2K related activities will also be required.

Evaluation of Management Comments

Management's comments are responsive to our suggestion.

Suggestion

3. Identify and then obtain reimbursement for rework costs caused solely by contractor actions, if permitted under current contract language. Ensure that future contracts include such language.

Management Comment

Management stated that they know of no situation, caused solely by contractor actions, under which excess cost have been incurred by the Postal Service. In addition, current contract language contains warranty and liability provisions for defective workmanship that would allow USPS to seek consideration from suppliers.

Evaluation of Management Comments

Management's comments are responsive to our suggestion.

Suggestion

4. Improve communication and contractor utilization by

- Allowing Integrated Business Systems Solutions Center management leadership to coordinate the timing and numbers of contractors assigned prior to contractor start dates;
- re-evaluating Y2K resource requirements periodically based on individual accomplishments and critical completion dates; and,
- continuing review of contractors' staffing at each site and implementing a process to terminate excess resources.

Management Comment

Responsible USPS managers will continue to be responsible for determining the timing and numbers of contractor personnel assigned to projects. Re-evaluation of contractor resources is on-going based on the task, scope, and nature of the work. Processes exist to terminate excess contractor resources.

Evaluation of Management Comments

Management's comments are responsive to our suggestion.

Suggestion	5. Analyze the process for granting security clearances to contractor personnel to ensure that security clearances are granted in a timely manner.
Management Comment	The Y2K Program Management Office and Integrated Business Systems Solutions worked with the Inspection Service to negotiate an agreement that would enable USPS to quickly obtain skilled Y2K resources without putting security at risk. Additional full-time resources were obtained to process Y2K-related clearances.
Evaluation of Management Comments	Management's reply is not responsive. OIG noted that security clearances were not always timely requested for contractor personnel. USPS management needs to address how it will improve the security clearance process to ensure that contractor personnel provide the necessary information within acceptable timeframes to allow security clearances to be processed in a timely manner.
Suggestion	6. Ensure that contractor personnel are performing productive work while awaiting a security clearance. Disallow contractor payments for employees without a sensitive security clearance but who are required to have a sensitive clearance to complete contractual Y2K tasks.
Management Comment	Accountable USPS managers are responsible for ensuring contractor personnel awaiting a security clearance are performing productive work. Waiver requests have been processed, without incident, when contractor work was required to be performed without a sensitive clearance.
Evaluation of Management Comments	Management's comments are responsive to our suggestion.
Suggestion	7. Require contracts to follow USPS travel policy.
Management Comment	Management replied that travel is a contract term, and as such is subject to negotiation. However, contractors' employees are generally required to follow USPS travel requirements without deviation. In one instance a contractor was allowed to deviate from standard travel policy for a period of time while contract terms were being definitized.

Evaluation of Management Comments

Management's comments are responsive to our suggestion.

Suggestion

8. The Vice President, Finance, and Controller, should continually monitor the Y2K budget to ensure that the amounts are sufficient and properly allocated among the various Y2K areas.

Management Comment

A Financial Management Team working in liaison with the Information Systems Support Staff regularly monitors and reviews the status of Year 2000 funding. The Year 2000 Executive Council reviews and makes final decisions on exceptional funding requests. That same Council also monitors the Year 2000 budget and makes business decisions to support success of the initiative.

Evaluation of Management Comments

Management's comments are responsive to our suggestion.

We appreciated the cooperation and courtesies provided by your staffs during the review. If you have any questions, please contact me at (703) 248-2300.

Colleen A. McAntee
Assistant Inspector General
for Performance

Attachment

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UNITED STATES
POSTAL SERVICE

June 7, 1999

Ms. Colleen A. McAntee
Assistant Inspector General
  for Performance
Office of Inspector General
1736 N. Lynn Street
Arlington, VA 22209-2020

Subject: Year 2000 Initiative: Review of Administration—
Management Advisory Report Number FR-MA-99-XXX

Dear Ms. McAntee:

I am pleased to provide you our response to the subject report. We believe the responsibility for answering the first seven suggestions lies with Information Systems. Our response details actions taken or planned for the eighth suggestion noted in the report.

You suggest the project management "continually monitor the Y2K budget to ensure that the amounts are sufficient and properly allocated among the various Y2K areas."

We agree with this suggestion and have implemented it. We have assigned a Financial Management Team headed by Kristine Wright to work with the Information Systems Support staff to regularly monitor and review the status of Year 2000 funding. This process includes certification of funds, review of Program Cost Tracking System information, generation of accruals and reviews for changes in funding for program activities. A process for reviewing and presenting the financial status of the project has been developed and is regularly presented to the Year 2000 Executive Committee, as are requests for additional funds.

The Finance team believes there are now adequate controls in place to effectively manage the quality and cost of contractor work related to the Year 2000 effort. The Year 2000 program leaders from Information Systems, Operations and Government Relations are clearly identified in the Postal Service program plan and understand they are responsible and accountable for Year 2000 contractor efforts. They continue to work diligently to ensure appropriate oversight is maintained to accomplish the Year 2000 objectives. The finance team assists them in this effort through regular budget reviews and rigorous examination of plans.

If you require additional information with respect to this response, please contact Kristine Wright, Year 2000 controller, at (651) 406-1068.

Sincerely,

M. Richard Porras

M. Richard Porras

475 L'Enfant Plaza SW
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202-268-5272
Fax: [illegible]

Norman E. Lorentz
Chief Technology Officer
Senior Vice President

UNITED STATES
POSTAL SERVICE

June 10, 1999

Ms. Colleen A. McAntee
Assistant Inspector General
for Performance
Office of Inspector General
1735 N. Lynn Street
Arlington, VA 22209-2020

SUBJECT: Response to OIG Report Year 2000 Initiative: Review of Administration Management Advisory Report Number FR-MA-99-XXX

Dear Ms. McAntee:

Enclosed please find our response to the subject report which details actions taken or planned for each of the eight suggestions noted in the report.

Thank you for providing the opportunity to meet with your staff on April 28, 1999, to discuss your initial report findings. The meeting resulted in a better understanding of some of the issues and the management structure of the Year 2000 effort. Although we noted that the revised report more accurately represents the budget, management structure and responsibilities of the ISS organization, it does not reflect the substantial input provided your office in writing and in discussions during and subsequent to the meeting contravening the report observations. While additional discussions might resolve some of the observations noted in the report, we believe there is greater value in directing our comments to the specific suggestions included in the report.

Adequate controls have been and continue to be in place to effectively manage the quality and cost of contractor work related to the Year 2000 effort. The work segment leaders identified in the Postal Service Program Plan are responsible and accountable for Year 2000 contractor efforts and they continue to work diligently to ensure appropriate oversight is maintained to accomplish the Year 2000 objectives.

With respect to your request to identify portions of the report which are exempt from disclosure under the Freedom of Information Act (FOIA), we would appreciate having the opportunity to identify such information when the final report is issued internally. Additionally, we recommend that the information posted on your web page be limited to the report suggestions and the Postal Service management responses thereto.

If you require additional information with respect to this response, please contact James L. Golden, Year 2000 Initiative Executive Program Director, at (703) 526-2686.

NE Lorentz

475 L'Enfant Plaza SW
Washington DC [illegible]
[illegible]
Fax: [illegible]

Response to Suggestions
In the OIG
Review of Administration Management Advisory Report

Summary Comments

While the eight suggestions in this report are valid, they largely describe processes and procedures that existed as early as 1998. We believe the observations in the report do not accurately reflect the extent of management controls and monitoring activity presently in place and functioning throughout the organization. However, this response addresses only the specific suggestions in the report.

In order to put our responses to the suggestions in context, the following brief description of the program organizational structure is provided:

- The Integrated Business Systems Solutions (IBSS) organization is comprised of Portfolios and resource centers.
- Portfolio Managers represent their functional business area vice presidents and are responsible and accountable for success of information technology projects.
- Center managers are suppliers to Portfolio Managers. They are process, work product quality, and resource managers for work assigned to their center.
- Contracting Officer's Representatives (CORs) represent the Contracting Officer and are responsible for contract oversight and administrative functions .
- Technical representatives are designated at the site level to perform local contractor administrative functions.
- Year 2000 representatives at each site are responsible for organizational and operational activities.
- Portfolio Resource Management Analysts are assigned for portfolio-specific organizational, operational, and administrative functions.

Response to Suggestions

1. ***Improve contract management by:***

   - ***including Integrated Business Systems Solutions Center management leadership in contractor-monitoring duties for Y2K projects;***

Response: Complete. Contract monitoring duties are performed by the postal manager accountable for the work as defined in Year 2000 Initiative program plans. In the case of Year 2000 projects under Information Systems, the responsible personnel are the IBSS Portfolio Managers, not the IBSSC Managers.

IBSS Portfolio Managers are responsible for monitoring the suppliers performing remediation and program/project management facilitation for their portfolio. The manager of the Independent Verification work segment is responsible for monitoring suppliers performing IV activities across Centers and portfolios. The remaining work segment managers monitor suppliers supporting their work segments.

"Road Shows" were held at each of the IBSSC's by the CORs to explain the contracts, roles and responsibilities and functions of the tasking. In addition, contractor leads are required to provide weekly status reports to Portfolio Managers as well as local site managers detailing the tasks being worked on and the progress made.

- ***Providing USPS monitoring of all contractor activities, both at USPS and non-USPS facilities (when practicable);***

Response: Complete. Accountable postal work segment managers have and will continue to monitor contractor activities at USPS facilities. Additionally, the Contracting Officer, Contract Administrator, and Contracting Officer's Representatives assigned to the contracts perform monitoring from a program level. While it would be ideal for a USPS manager to be on site at non-USPS facilities to monitor contractor activities, this is typically not practicable given the number of managers available for such duties and the location of many contractor facilities. However, we continue to review work product output and the contractor employee time charges entered into Program Cost Tracking System (PCTS), whether the contractor employee is located at a USPS or a non-USPS facility.

- ***Ensuring that USPS personnel responsible for Y2K projects continue to evaluate the reasonableness of contractor employee time charges entered into the Program Cost Tracking System***

Response: Complete. We have and will continue to perform detailed analysis and audit of each invoice submitted by the contractors to ensure costs are reasonable and appropriately reflect time charged to USPS contracts. To facilitate this process, contractors working on the Year 2000 Initiative record their time each week in the PCTS. The responsible postal manager to whom each supplier is assigned reviews and approves the time recorded prior to invoices being paid.

2. ***Analyze all tasks performed subsequent to Y2K certification to ensure that they are necessary.***

Response: Complete. In mid-1998, the OIG reviewed our certification and verification processes and assisted us with guidance with respect to process improvements. This guidance has been incorporated into our processes. The Postal Service Program Plan has been reviewed and approved by the Year 2000 Executive Council and the costs and the benefits of each activity have been considered to ensure each activity is necessary. We continue to follow the defined process for certification. Additionally, we continue to require independent verification for applications categorized as Severe/Critical. Independent Verification is also required for Mail Processing Equipment and for other selected Year 2000-related activities.

3. ***Identify and then obtain reimbursement for excess costs caused solely by contractor actions, if permitted under current contract language. Ensure that future contracts include such language.***

Response: Complete. We know of no situation under which excess costs have been incurred by the Postal Service caused solely by contractor actions. Current contract language contains provisions for warranty of final product and liability for defective workmanship that would allow us to seek consideration for supplier actions.

4. ***Improve communication and contractor utilization by:***
   - ***Allowing IBSSC management leadership to coordinate the timing and numbers of contractors assigned prior to contractor start dates***
   - ***Re-evaluating Y2K resource requirements periodically based on individual accomplishments and critical completion dates; and***
   - ***Continuing review of the contractors' staffing at each site and implementing a process to terminate excess contractor resources***

Response: Complete. As noted earlier, responsible USPS managers monitor contractor performance through the life cycle of their work. This includes hiring/staffing contractor personnel, directing their work assignments, controlling the time they spend on the efforts and assessing the quality of the services delivered.

- The accountable postal managers determine the numbers and skills of personnel required to perform the work and from where the resources will be staffed consistent with the Year 2000 work plans.
- Staffing requests detailing the numbers and skills of contractor personnel to be hired are developed and are approved by the accountable postal manager.
- The accountable postal manager assigns each contractor resource to a specific Year 2000 task and ensures that this is entered into the USPS Program Cost Tracking System (PCTS) for time validation.
- Contractors provide a weekly report to the accountable postal managers detailing the progress of work being performed for the Year 2000 effort as well as the status of specific contract deliverables.
- On a weekly basis, though sometimes more frequently, postal management assesses the quality and timeliness of supplier work against agreed upon work plans, and those who are not performing as required are rolled off and replaced as needed.

We will continue to have the postal manager who is accountable for the projects be responsible for determining the timing and numbers of contractors assigned to those projects. Re-evaluation of resource requirements, contractor resources assigned, and the organization of such resources is on-going based on the task, scope, and nature of work remaining to be performed and we are making adjustments appropriately. There is a process in place to terminate excess contractor resources.

5. *Analyze the process for granting security clearances to contractor personnel to ensure that security clearances are granted in a timely manner.*

Response: Complete. The Year 2000 PMO and IBSS worked with the Inspection Service to negotiate an agreement that would enable us to get skilled resources to work on Year 2000 projects as quickly as possible without putting security at risk. The Year 2000 PMO obtained two full-time resources to process Year 2000-related clearances as a top priority.

6. *Ensure that contractor personnel are performing productive work while awaiting a security clearance. Disallow contractor payments for employees without a sensitive security clearance but who are required to have a sensitive clearance to complete contractual Y2K tasks.*

Response: Complete. The accountable USPS manager is responsible for ensuring contractor personnel who are awaiting a security clearance are performing productive work consistent with the guidance established by the Inspection Service and Information Systems management. We have processed waiver requests with the Inspection Service, without incident, in situations in which we need to have a contractor working on Year 2000 without a sensitive clearance. When we grant contractor personnel a waiver or interim clearance and productive work is performed, we are obligated to pay for work performed.

7. *Require contracts to follow USPS travel policy.*

Response: Complete. There was one contractor that was initially awarded a "Letter Contract" requiring definitization. The Letter Contract required travel in accordance with the F-15 Handbook; however, a deviation to the travel policy was requested by the contractor to allow for weekly travel home by their employees. This was supported by the Year 2000 initiative as a necessary one-time concession to be effective until definitization of the contract. Upon completion of the negotiations the requirement for travel within the F-15 guidelines, without deviation, was reinstated with a cost comparison model approved by Finance. The cost comparison is submitted for each traveler and a review is made by the

Year 2000 PMO COR audit staff. USPS pays only those charges that are less than or equal to the travel costs under the F-15. However, it should be noted that travel is a contract term and, as such, is subject to negotiation. Generally, contractors are required to comply with the F-15 Handbook guidelines.

8. *Continually monitor the Y2K budget to ensure that the amounts are sufficient and properly allocated among the various Y2K areas.*

Response: On-going. Early in 1998 an individual was assigned by Finance in an oversight capacity to monitor the budget. Subsequent to the initial assignment, Finance assigned a Financial Management Team headed by a Controller working in liaison with Information Systems Support staff to regularly monitor and review the status of Year 2000 funding. Exceptional funding requests are moved through an evaluation process to the Year 2000 Executive Council for final review and decision. The Year 2000 Executive Council also reviews and monitors the budget and makes business decisions appropriate to the success of the initiative.

Mrs. MORELLA. Very good, thank you; thank you.

I have taken up enough time. Thanks, Mr. Chairman.

Mr. MCHUGH. I thank the gentlelady. The gentleman from Texas, Mr. Turner.

Mr. TURNER. Thank you, Mr. Chairman.

Mr. Lorentz, you said in your statement that the Postal Service is the only organization that is in a position to say, “the buck stops here.” As I look at this panel, it is pretty clear that in the totality of those gathered here, you are the one that has to say, “the buck stops here,” because if things don’t work out, I am sure that you are the one that is really going to be looked to for the explanations.

Part of the purpose, I think, of our hearing here today is to try to reassure the American public that their mail is going to be delivered on time. There is a lot of—as you know, and as all of us know—a lot of hysteria surrounding the Y2K problem. It is somewhat amazing, as we have gone through many of these hearings with other agencies, to realize that we are all gathered here because of a problem that some computer folks from the past did not take care of.

Perhaps, there are some comments you could make that could be reassuring, and let me direct the question to you this way.

One of the concerns I have was when I noticed that so far you have spent $200 million addressing the Y2K problem. Yet, I also read that, in the next 300 days, you are going to spend $400 million more, which suggest to me that there is a whole lot left to be done, and maybe we are behind if we have to spend $400 million at the Postal Service in 300 days.

Maybe it would help if you could specifically tell us of the efforts you have made for that first $200 million. What problems did you find that you fixed, and if you hadn’t fixed, would have resulted in some disastrous consequence for the American postal customers?

Second, of the $400 million you are going to spend in the next 300 days, what do you think you are going to fix, that if you don’t, will be problem?

Mr. LORENTZ. In answering the first question about the $200 million; we have over 500 important systems of which 152 have been identified as either “severe” or “critical.” And “severe” means that it affects moving the mail; it affects those four areas: moving the mail, collecting revenues, making payments, and the safety of our people. And of those severe systems—the difference between “severe” and “critical” is that there is no work around for a severe system; you have to fix it. And the criticals, there is an identifiable work around.

Of those 152 systems, we have completed what we call “remediation.” In other words, that is a euphemism for “fixed.” We fixed 131 of the technical problems in those 152 systems, and we have actually implemented 108. In addition, we have 55 that have been actually externally verified.

We are also looking at the balance of the 359 that are less than critical. The 152 has been a major investment. It is very expensive to go into 100 million lines of code, to actually do an external verification.

We also have completed some simulation testing on the automation that we have in our plants, both P and DC's and bulk mail centers.

So what we have gotten up to this point is the "lion's share" of the, "technical fixes."

The balance of the $400 million that you addressed, I think we are going to end up—we are currently for the year at about $99 million. I think we have spent about $197 million up to this point. We plan on spending about $340 million for the year to look at the balance of those 349 systems. And we have also got the continuity planning and contingency planning, the "what ifs," where we cannot remediate something, where we have to build a contingency, that is what the investment resources are for.

Mr. TURNER. Well, give me just one concrete example of something you did fix that if you hadn't, it would have resulted in some specific consequence. Maybe in the area of delivery of the mail would be the more interesting example, and if you hadn't fixed it, what would have happened——

Mr. LORENTZ. We have——

Mr. TURNER [continuing]. On January 1st?

Mr. LORENTZ. We have systems that delivery sequence letter mail. And, basically it varies how much that we literally have there, depending on the location—between 80 and 90 percent of the mail is in delivery sequence mode. That is a tremendous amount of the letter mail that is in delivery sequence. That would be something that would be very difficult to replace with manual sortation.

Another example is——

Mr. TURNER. You know that that would not have happened if you hadn't gone in and fixed this problem?

Mr. LORENTZ. Absolutely. We believe that to be true.

Mr. TURNER. It wouldn't have been sorted?

Mr. LORENTZ. Well, it would have been much more difficult to sort. I guess I can refer Nick to part of this question. But over the last few years, we have invested a tremendous amount of money in letter mail automation to remove manual intervention in that mail stream. And so, basically, that is what those systems do.

Mr. TURNER. I know you have a lot of people looking over your shoulder, and they are never going to tell you that you have done enough. That is a risk they won't want to accept. What is your greatest fear of what might happen if you don't move forward in the things you are going to spend the next $400 million on? What is your greatest fear that you now need to address?

Mr. LORENTZ. Well, I really appreciate—[laughter]—having the ability to answer that question, because this is an area where I think we need your help, and I think this hearing can be helpful.

We have a very significant issue with getting the attention of suppliers.

And you have brought up the issue, Mrs. Morella, of the fact that there are liability issues and so forth and so on, but we are making an earnest effort to contact our suppliers and determine their situation relative to Y2K.

So, if there is an area of concern, it is being able to fully engage with our suppliers and get the information about where they are.

Mr. TURNER. As a percentage of your total annual Postal Service budget, how much are we spending on remediating Y2K?

Mr. LORENTZ. The total projected cost, at this point, is $607 million.

Mr. TURNER. As a percentage of what your operating expenses at the Postal Service, what would that be?

Mr. LORENTZ. It is——

Mr. TURNER. On an annual——

Mr. LORENTZ. It is less than 1 percent. In our terms, it is the equivalent of about six "rounding errors."

Mr. TURNER. Of what?

Mr. LORENTZ. Six "rounding errors." A "rounding error" is $100 million in a $63-billion company.

Mr. TURNER. About 1 percent?

Mr. LORENTZ. One percent.

Mr. TURNER. Additional operating costs?

Mr. LORENTZ. Yes.

Mr. TURNER. Thank you, Mr. Chairman.

Mr. MCHUGH. Thank you.

The gentleman from Maryland, Mr. Bartlett.

Mr. BARTLETT. Thank you very much.

In trying to understand the potential implications of the Y2K problem, I have taken a very simplistic look at the exponential function involved here.

If there are just seven process or services that are essential for the delivery of mail; like power, and communications, and suppliers, and sorting equipment, and information systems, data exchanges, information technology infrastructure, and so forth—there may be a whole lot more than that. But, if there were only seven, and we look at the probability that we are going to be able to deliver the mail, if we have a 90 percent probability that each of those seven is going to work. Then, you multiply 0.9 times 0.9 times 0.9, seven times, and you come out with a total system probability of success of less than 42 percent.

If you make the assumption that maybe the future is not quite that rosy, that there is a 60 percent probability that each of these seven systems—services, whatever—need to work before we can deliver the mail; then, 0.6 times 0.6 times 0.6, seven times. The exponential function is really quite fascinating, because now we come to a 1.6 probability that we are going to be able to deliver the mail.

Mr. Brock indicated you have the second most complex system in our country—the most complex being the Defense establishment—have you looked at the probability of what will happen and what contingency planning you need to put in effect from this exponential analysis viewpoint?

Mr. LORENTZ. I guess an understatement would be that it is, obviously, a very complex situation. I think where we gain confidence that we are approaching it in an effective way is that we have used common approaches in industry where we have done unit remediation; we have done string testing. I think the most significant area that we are getting into now—we have started on it, our critical operational processes—is something called, "simulation testing," where we fit all of the processes together and make sure all of it works. And to me, I think, that is a key for us.

By the same token, being a systems person, you know that once you put something live, what you have come in the front-end could be a different circumstance than maybe you even tested for. And I believe that is where we have to be very effective at looking at what our contingencies need to be.

But our approach, we believe, puts us in the position to have an effective outcome.

And, Nick, and, Rick.

Mr. BARRANCA. Yes, I understand, the premise that you laid out for us, and it can result in that type of cumulative probability. And as part of our continuity planning and our contingency planning, what we are trying to do, and what we have done initially, was to look at the appropriate levels of planning at the national, the area, and the local level. Because I think as things do not work—and some things won't work; I mean we all realize as we get into this, something is going to fail at some place in time. I think one of the facts will be that it won't fail every place at the same time.

So our continuity planning and contingency planning is looking at what happens at the local level for local issues that need to be addressed.

To a certain extent—and I don't want to minimize the problem—but to a certain extent, I think it is like a weather issue, in that there will be hurricanes on January 1st in some parts of the country that we will have to react to, like we have in the past. But I don't think there will be a hurricane for the entire country.

Our continuity planning and our "recovery management," which is another term for "command, control, and communications," which we will have in place before and after January 1, will focus on: what are the appropriate issues that need to be addressed at the local level, and what are the issues that need to be addressed at the area level? What are the issues that need to be addressed at the headquarters level? And we will have the command, control, and communications in place at all those levels. And the contingency plans are ready to be implemented, depending on if it is a local situation, a broader geographic issue to be dealt with in the area, or a national situation that we have to deal with here at the national level.

So, while what you lay out likely could happen, I hope it doesn't happen in the entire country. It might be one area that we really have to focus our attention on. But our plans are structured in a way that they are layered based on the level of the organization that has to respond to the situation that presents itself.

Mr. BARTLETT. Of necessity, of course, you address the problems one-by-one. If you are looking at each of the problems separately, one can have reasonable confidence that there is a reasonable level of expectation that we are going to be successful in solving that problem.

But my concern was, since this is a very complex system, relying on a number of things happening, sequentially—successfully happening sequentially—that it is interesting to look at the probability that the mail is really going to get through by this of simply multiplying one probability by another probability by another.

Of course, there are some of these things, that if they don't work, you are not going to deliver the mail at all. If we don't have a power grid, for instance, the mail is not going to be delivered at all. So that is a 100 percent shutdown if that one doesn't work.

I wonder if the other two organizations that have looked to this have looked at the exponential complication here?

Mr. BROCK. Not precisely in the way you have addressed it, but we have recognized that when you are doing the overall end-to-end testing, the simulation testing, that as you introduce more complexities into it, it certainly increases the risk that you will have failures that will affect the ability of the overall process to function properly.

And that, second, as you develop the contingency plans, since you are developing them now for something more than just a single system or a single element of that process, that it also increases the complexity and, ultimately, the expense of those plans.

There is something to be gained from that, though, by going through processes like this. Organizations that have not done it before can develop an inherently better understanding of their business processes and the key flow through those processes and what may, in fact, be "fat" and what is of necessity, "muscle."

Ms. CORCORAN. We haven't looked at that issue either, from an exponential aspect. However, in our very first report, we talked to the Postal Service about their need for continuity plans from the standpoint that things are going to go wrong, and they need to understand exactly how these things all fit together. And it does paint a very bleak picture when you look at it in the manner in which you did.

Mr. BARTLETT. Mr. Chairman, I wonder if maybe our enormous success might ultimately be the basis of our undoing. We have been so successful in automation and in high tech. And we now become, because we have been so successful there, we become more vulnerable to the Y2K bug.

Thank you very much.

Mr. MCHUGH. I thank the gentleman.

The gentleman has been very successful in his first question, reminding me why I majored in political science. [Laughter.]

The gentleman from New York, Mr. Gilman.

Mr. GILMAN. Thank you, Mr. Chairman.

I do have several questions.

I think it was Mr. Lorentz that said that 152 severe systems still were part of the 500 systems. Of those remediated were 131, but only 55 have been verified for Y2K compliance. How long will it take to verify the balance of those severe systems?

Mr. LORENTZ. The balance of those systems will be externally verified by the June timeframe. And we have just three of those specific systems that will be verified after June. So, 149 will be verified by June, and then three after that, but all before the end of year.

Mr. GILMAN. Some agencies have discovered that some of their system which they had considered to be Y2K compliant needed additional work to be fixed. Does this mean that the Postal Service doesn't really know today whether the systems it has worked on to make them Y2K-ready will actually work on January 1, 2000?

Mr. WEIRICH. Well, like everyone else, we haven't been there yet; we have only tested. Certainly, there is some risk that there could be a deficiency in our testing that we will discover when the time comes.

Mr. GILMAN. But when will you put a deadline on getting all of that testing done?

Mr. WEIRICH. The deadline is the one Mr. Lorentz communicated. We have tested each of these systems as we have done the work. We have been giving each system to an independent team; basically, set up a "tiger team" structure where we have a complete independent review of the testing that was done, whether all the test cases were, indeed——

Mr. GILMAN. Is that an in-house testing group?

Mr. WEIRICH. This is done by an external supplier who is providing a check and balance against our own folks.

Mr. GILMAN. Will they be able to do all of that check and balance by your deadline?

Mr. WEIRICH. Yes, they will.

Mr. GILMAN. The Service uses computer networks to conduct financial transactions with the Treasury Department and financial institutions. How could the Service's operations be disrupted if it has Y2K-related problems in the electronic data exchanges? And, what is the risk of that happening?

Mr. LORENTZ. That is one of our most significant portfolio systems, the financial systems, and that is being overseen by the chief financial officer. We have very specific plans in place for all of those interchanges, and there are specific test plans that have been developed.

Mr. GILMAN. So what is the——

Mr. LORENTZ. So we have been——

Mr. GILMAN. So what is the progress of all of those?

Mr. LORENTZ. Rick, do you want to speak on the progress issue?

Mr. WEIRICH. Those are proceeding on plan. We are working with Treasury, specifically, and doing joint testing. That is one of the areas where we recognized the need to test together, so end-to-end, we know that our processes both work.

Mr. GILMAN. Well, how many electronic data interchanges have been identified as having Y2K problems? And of those, how many have been renovated, tested, and validated?

Mr. LORENTZ. I have some statistics if I find the right sheet. The statistics that we have relate to the electronic interfaces with some of our suppliers of the equipment that generates postage. I can get you that specific information. We don't have it with us.

Mr. GILMAN. Would you supply that to the committee——

Mr. LORENTZ. Absolutely, I will.

Mr. GILMAN [continuing]. At your earliest convenience.

Mr. LORENTZ. Thank you.

Mr. GILMAN. I would like to make that part of our record today.

The General Accounting Office, while not issuing a formal report, has been conducting ongoing audits of the Postal Service. And among the GAO's many concerns, the fact that the Postal Service serves as a primary backup system for our Federal agencies in the event of Y2K failures in their organizations, potentially creating a multitude of problems in mail handling caused by the steep spike in mail volume. GAO found that the USPS lacked a detailed project plan for any system that would contain target dates for remaining tasks and necessary resources. It does not have a good picture of system conversion status because the progress reports are inaccurate and that you were late in implementing your post-implementation validation plan and have not prepared the contingency plans. Have those problems been resolved?

Is our GAO representative—Mr. Brock, can you respond to that? Have they resolved those questions?

Mr. BROCK. They are working on resolving those questions. There are still unknowns—as I mentioned in my statement, Mr. Gilman—that they need to resolve to provide the certainty.

I would like to add something to my statement, though. When you were talking about the Postal Service, in fact, acts as a contingency plan for many organizations who rely on electronic commerce. I think a couple of things could well happen here is, first of all, that some organizations not wanting to risk triggering their own contingency plan may, in fact, start to mail more later in the year, therefore, increasing the burden on the Postal Service.

Second, if——

Mr. GILMAN. Are they prepared for that?

Mr. BROCK. This is something they should be examining in their contingency plans.

Mr. GILMAN. Have they been examining them?

Mr. LORENTZ. Yes, we have.

Mr. BROCK. The second issue—and the one that is, frankly, a little more troublesome—that if, in fact, the trigger events that would cause someone engaged in electronic commerce to have to rely on the Postal Service, and some of those trigger events might be a break down in electrical power, or things like that, would also be trigger events that would have a negative impact on the Postal Service and would, in fact, impact their ability to act as a contingency plan for another organization.

So, it is sort of a vicious circle there.

Mr. GILMAN. Well, how do we address that? How is that being addressed?

Mr. BROCK. I think that, at this point, we are now talking about contingency plans that need to be elevated to the national level. These are things that the Y2K Conversion Council, under John Koskinen, should be considering, I believe, starting in the April through June timeframe, when they begin to look at national contingency plans.

Mr. GILMAN. Are they looking at that now?

Mr. BROCK. They are preparing for that now.

Mr. GILMAN. What does "preparing" mean? Are they going to address the problem——

Mr. BROCK. Yes.

Mr. GILMAN [continuing]. Or not address it?

Mr. BROCK. Yes; they have hired contractors to help develop what they call "tabletop exercises," that will allow them to examine a number of contingencies, and contingencies such as this are some of the ones that they would be examining.

Mr. GILMAN. Just one or two other questions, Mr. Chairman.

The Postal Service, I have been informed, is using outside contractors to help deal with Y2K, as you have indicated. These contractors employ many foreign workers. How has the Postal Service dealt with this from a security perspective? Has there been any security arrangements?

Mr. WEIRICH. Yes, we have rather strong requirements for security screening of personnel who work on our sensitive activities.

What we have done in the case of foreign nationals is target them at work areas that were not sensitive. We have not been using foreign nationals, for example, to modify our code, itself. But we have been using foreign nationals to assist in some of our project management and oversight activities.

Mr. GILMAN. How has the Postal Service ensured that the external suppliers, who have self-reported readiness, will not run into unforeseen problems come January 1, 2000? How do you check up on the readiness reports?

Do you do any checking up on readiness reports?

Mr. WEIRICH. Yes, we are. In addition to talking to our suppliers, we are monitoring all the information that is publicly available. We are looking to sources like industry groups and trade groups. We do sit on several of the different Federal groups that monitor areas like transportation, so that we get a perspective of what is going on in an industry and what other information is available about the likely performance of the suppliers we depend on in that area.

Mr. GILMAN. Well, do you have reliable way of checking on a specific contractor that says, "Yes, we are ready?" How do you know they are ready?

Mr. LORENTZ. I guess I would say that is where we rely on the three-tiered testing approach, where we have a supplier that is helping us to remediate and, basically, fix the code, et cetera. We have a different supplier that is doing an external verification. And then, last, in the very critical processes, we are doing simulation testing, which is an entirely different process for exercising all of the systems at once.

So, in terms of process, that would be our approach to making sure we are not kidding ourselves.

Mr. GILMAN. So all of your contractors, then, will be tested?

Mr. LORENTZ. In their——

Mr. GILMAN. Is that what you are telling me?

Mr. LORENTZ. In their various roles.

Mr. GILMAN. The Inspector General recited a number of recommendations for top management.

Can I ask the Inspector General, has this list been complied with?

Ms. CORCORAN. The Postal Service has been very good about working with us and accepting our recommendations and working to implement them. These are not things that can be done overnight. It is the direction that they are moving. As I had mentioned earlier, one of the first things we had recommended——

Mr. GILMAN. Could you put that mic a little closer to you?

Ms. CORCORAN. One of the first things we recommended, in March 1998, was that they start working on their continuity plans. They just have recently, since last fall, started working on it. We would have liked to have seen them get on that one a little faster. But, generally, they have been working with our recommendations.

Mr. GILMAN. Have there been any shortcomings so far?

Ms. CORCORAN. In terms of dealing with our recommendations?

Mr. GILMAN. Of complying with your recommendations.

You made 17 recommendations, as I understand it. Have they all been complied with?

Ms. CORCORAN. We follow up as we are doing additional work. At this point in time, I believe they have all been dealt with. As I said, the one that was really concerning us was the one on continuity plans.

Mr. GILMAN. So everything else has been complied with except——

Ms. CORCORAN. The last report, we just issued last Friday.

Mr. GILMAN. And did you find any shortcomings in your report?

Ms. CORCORAN. Yes. This is the one that we believed that the Postal Service needed to put together better data, use a more consistent format, and assure, when managers were making decisions, that they really knew what they had, instead of shifting definitions and numbers. The Postal Service has agreed to do that. But to my knowledge, they have not complied with that report yet.

Mr. GILMAN. And how will you followup with regard to your recommendation?

Ms. CORCORAN. We are constantly in the Postal Service looking at the Y2K area. At this point in time, we have about 25 percent of our evaluator resources looking at the Y2K issue, and so it will be something that we will be monitoring on an almost daily basis.

Mr. GILMAN. Have you submitted your latest report to this committee?

Ms. CORCORAN. Yes, sir. It was attached to the testimony.

Mr. GILMAN. Thank you.

Mr. MCHUGH. I thank the gentleman.

Mr. GILMAN. Thank you, Mr. Chairman.

Mr. MCHUGH. Thank you, Mr. Gilman.

Mr. Turner.

Mr. TURNER. Thank you, Mr. Chairman.

Mr. Lorentz, earlier, in response to my question, you gave me a specific example of something that you had discovered to be non-Y2K compliant that had been fixed, and you referred to the computer systems that sort the mail, that replace the manual sorting of the mail.

Mr. LORENTZ. I would like to clarify what my response was on that. The issue that my understanding of your question was, “Could you give me an example of a system that, if it was not fixed,” and that was the context in which I answered that question. So——

Mr. TURNER. So, that sorting system——

Mr. LORENTZ. That was just purely an example of a severe system that, if it was broke, we would have a difficult time replacing it.

Mr. TURNER. And I take it that——

Mr. LORENTZ. That is, by the way, one of the systems that is fixed so—[laughter.]

Mr. TURNER. So, if it hadn’t been fixed, we would have——

Mr. LORENTZ. Yes, that is correct.

Mr. TURNER [continuing]. Had a problem sorting the mail.

As I understand it, over the last several years, you have installed across the country a lot of these computerized mail-sorting systems?

Mr. LORENTZ. That is correct.

Mr. TURNER. Over what period of time has that been done by the Postal Service?

Mr. LORENTZ. Do you want to address that?

Mr. BARRANCA. The letter automation and flat automation programs started in 1987.

Mr. TURNER. And have continued up to when?

Mr. BARRANCA. The bulk of the equipment is currently in place and being used. We are making refinements to the system on an ongoing basis, and we are still deploying some pieces of equipment to sort the larger-size envelopes which we call "flats."

Mr. TURNER. Of the systems that you fixed, how old were they?

Mr. BARRANCA. How old were they?

Mr. TURNER. How old were they?

Mr. BARRANCA. The original systems went in 1987, but the computer and the software components of those systems are updated on an ongoing basis. So, I mean we don't have systems out there that date back to 1987. We have some frames and some mechanical aspects of the equipment that date back to 1987, but the software is updated on a continuing basis, because one of our objectives is to make it better so it reads more mail, so we can finalize more mail in the automated system.

Mr. TURNER. So it was the software that had the problem that you fixed?

Mr. BARRANCA. That is correct. Well, all of our systems were—software was tested to make sure that it was Y2K compliant, so that we had assurances that, internally, mail that we are processing today, on equipment we are using today, will still function in the same manner it functions today, after the year 2000.

Mr. TURNER. Is there only one supplier of this software, or are there several companies that supply this software?

Mr. BARRANCA. The equipment has been supplied by a number of suppliers. The software changes to that equipment is developed and provided to field sites from a centralized location that we manage at our Engineering Development Center. We have a Process Control Unit that controls the software for all of our automated sorting equipment.

Mr. TURNER. So it is fair to say that the problem you found and corrected was a software problem, not a hardware problem?

Mr. BARRANCA. That is correct.

Mr. TURNER. And, private companies supply this software to the Postal Service?

Mr. BARRANCA. They have supplied it as part of the original equipment deployments. As I said, we have a unit out at our Engineering Development Center, which is a Postal Service unit—that is our Process Control Unit—that provides all the new software and updates to all of our existing software.

And so, when we stamp out a piece of equipment for an OCR, it is developed in our Engineering Development Center. It is tested in a number of sites, and then it is sent out to all of our sites so that we have some control over what processes we are using at all our facilities.

We make sure that we are using the most efficient software in all of our plants, so that we can keep as much of the mail processed in automation to take advantage of the advancements we have made in sorting software.

Mr. TURNER. It would be fair to say that, when you discovered that your software had a problem that had to be fixed to be Y2K compliant, that the problem you found was one created by the Postal Service because you engage in the function of producing the software for the Postal Service?

Mr. BARRANCA. Yes, whether or not we had a problem in the example that Norm used, I would have to go back and check. What he basically said was that, "If we have a problem in this software application, it would create a big problem." I can't sit here and tell you that we had a problem in that software. I would have to check on that.

Mr. TURNER. Well that——

Mr. BARRANCA. But we did check it all to make sure it worked in the year 2000.

Mr. TURNER. All right.

In my original—and maybe I wasn't clear with Mr. Lorentz—but what I was looking for is an example of something you had discovered to be non-Y2K compliant, in the course of your testing and your evaluation.

Mr. BARRANCA. Right.

Mr. TURNER. And you have fixed it.

Mr. BARRANCA. Yes, I can——

Mr. TURNER. If you hadn't have fixed it——

Mr. BARRANCA [continuing]. Give you an example along those lines.

Mr. TURNER [continuing]. There would have been a problem.

Mr. BARRANCA. I can give you an example of that.

Mr. TURNER. All right. That is what I was looking for.

Mr. BARRANCA. OK. One of the systems that we did test where we found we had a problem was the system we use to bill or assign mail to our commercial air carriers. When mail is assigned to carriers—when mail is billed to a carrier, we assign it to a particular flight in order to make a planned arrival time so our service standards would be accomplished. And what we did find in that system was that it would not function in a Y2K environment, thus we had to go and make adjustments to that system so it still would assign mail to commercial air carriers in the year 2000.

That is a problem we found as a part of the testing, and that is a problem that we have fixed.

Now there were "work arounds" if the system failed, which is we could go back to the way we did it prior to "CAB sunset," which was manual assignment to air carriers and pulling out the ledgers and the pencils and doing bulk assignments.

Mr. TURNER. That was a software problem that you fixed?

Mr. BARRANCA. That was a software problem.

Mr. TURNER. And were you the supplier of the software, or was that a private supplier?

Mr. BARRANCA. I think we probably supplied that software. That system goes back probably 10 or 15 years. But our testing led us to that problem which, in turn, led us to a “fix,” which is not a problem now.

Mr. TURNER. But of all the testing and verification that you have done thus far, do I take it that that is the only concrete example that you can cite me of something you found that would have been a problem had it not been fixed?

Mr. BARRANCA. Well, I am sure there are others. I was trying to identify one that, from an operation standpoint, would have been a significant problem if we hadn’t found it.

Mr. TURNER. I mean, I am asking this question, primarily because, as you know, the Postal Service is like any large corporation, and I am trying to get a feel for the scope of the kind of Y2K problems that we are running into. I know we are spending millions, billions of dollars in the public and private sector to test to be sure we are compliant, and I was just curious as to what your experiences have been, what you have discovered that was really a problem. And that, obviously, is the primary example that comes to your mind.

Mr. BARRANCA. That is one that I can state now. There are probably others that others might be aware of.

Mr. WEIRICH. As an example of what happens, yes, we just had our first failure case that we were able to document.

At the first of the year, we had a problem in one of our payable systems, and there was an edit in there that looked a year ahead. And when we looked and projected failure dates, that had not been noticed, and we did not realize the system was due to fail on the first of 1999. We had thought it would fail later. In fact, we had created a remediated version that was still in testing but had not put it into production.

So, indeed, the old version did “rear up” and fail on us. We had to call some programmers in, and we spent 3 hours in the middle of the night taking the patch and putting it on the old thing so it would work correctly. But, frankly, we would not have been able to pay the bills until we patched that program so that it would handle transaction.

In the case of the information systems, that is a lot of what we find in the repairs. A particular transaction would not process if the system were not fixed to correctly handle dates that have traveled the centuries.

In other cases, we have certainly—the system would incorrectly calculate intervals and would not be able to determine, for example, whether I had adequate years of service to collect an annuity. So people trying to retire would have problems proving their eligibility.

We have certainly identified a host of things in the systems where the calculations would have been incorrect, had we not gone through and changed them. And, indeed, in well over half of the systems that we have worked on, we can point to specific errors that would have occurred—they run the gamut—had we not made the changes to the code.

Mr. TURNER. I might just followup with Inspector General.

You have heard their responses. I get the impression that of all the efforts that have been made in testing and verification, that the number of discovered problems seems to be fairly minimal. It gives me some assurance that, perhaps, what remains to be done may not reveal any significant problems.

I know that is not a very scientific way to approach this, but it does seem to me that the number of problems that they have found and fixed is relatively small, compared to the scope of the testing that they have done.

Is that an accurate assessment, or am I somewhat off target?

Ms. CORCORAN. I am going to let Mr. Chambers answer that question.

Mr. CHAMBERS. Well, I think if I understood Mr. Weirich correctly, he just indicated that they had found problems in about 50 percent of their systems.

I think the important concern that we have about what remains this year is not necessarily in the information systems, because they appear to be on track to get the bulk of those fixed.

Our biggest concerns, as Ms. Corcoran indicated earlier, are in a lot of the more traditional non-information systems areas, such as facilities and these other non-suppliers and some of the other non-traditional areas. But to the extent that they have been reviewing the systems, these severe and critical systems, if they have been finding about 50 percent of them with some degree of problems, then I think it was probably an exercise well worth it.

Mr. TURNER. Thank you.

Thank you, Mr. Chairman.

Mr. MCHUGH. I thank the gentleman.

We have been joined off and on, as I indicated earlier—we knew we would—by various Members, and I want to recognize and thank them. The gentlelady from Michigan, Ms. Rivers, was here for a time.

And from those of us who dabble in computers talk about “spam,” we think about one thing, but when those of us who were raised in the 1950’s think about “spam,” we think of something else and—[laughter]—we have been joined by a gentleman who represents the great “spam” industry, a gentleman, Mr. Gutknecht, Gil Gutknecht. We welcome him, and I would be happy to yield to him at this time.

Mr. GUTKNECHT. Thank you, Mr. Chairman.

Actually, part of the reason I was late for the meeting, we were meeting with a delegation of members of parliament from Canada. We were talking, among other things about hogs and “spam,” and it did come up. [Laughter.]

I hope that this question hasn’t been answered, and I apologize, but, you know, I understand the first real test that we are going to face, according to some of the experts that have testified previously, is on September 9, 1999.

I am just curious, have you run any tests, or anybody want to comment on what is going to happen on September 9, 1999? Do we have some handle on what that is going to reflect?

Mr. WEIRICH. We would certainly agree with you. I think that is our first critical date. We are treating it as such. We have included this in the cases that we test for those systems that do operate on a month and fiscal year, for example. That will not affect a number of our systems, because not all of our systems use that forum. But for those where it does occur, yes; that will be the first we will be alert to.

Mr. GUTKNECHT. I take it that you are comfortable that you will meet that test on September 9th?

Mr. WEIRICH. As comfortable as we are about anything else in this program.

Mr. GUTKNECHT. That is an honest answer.

Let me just—one of the other issues that has come up in some of our other hearings is the issue of embedded chips. And how vulnerable are you to the problem of embedded chips? And do you have an inventory of how many you have?

I raise that issue because, not only do we have a little company that makes that wonderful pork product that was talked about earlier, but we also have in my district, a relatively small company that is a chip broker. They buy and sell chips all over the world. They have told me that there are a lot of companies who may not even realize that there are chips built into their all kinds of equipment that may or may not be Y2K compliant. I am just curious, in terms of the Postal Service or any other Federal agencies, have they done the inventory?

For example, one of the utilities in our State, they found that they had over 300,000 embedded chips in their system, most of which were not a problem, but at least they had an inventory and a better idea. Have you done the same?

Mr. WEIRICH. No, we have not done that per se. We have been pouring over our mail processing equipment primarily in this area, looking for whether we can identify any embedded chip weaknesses in those systems. To date, we have not. We have tested the systems.

Mr. GUTKNECHT. Do you plan to do that inventory?

Mr. WEIRICH. No, we don't plan an exhaustive inventory of all the chips.

Mr. GUTKNECHT. Thank you, Mr. Chairman.

Mr. MCHUGH. I thank the gentleman.

Mrs. Morella.

Mrs. MORELLA. I guess to followup, why? Why are you not doing any inventory on the embedded chips?

Mr. WEIRICH. We are looking for a case where they would have a date function that potentially could cause a machine to fail. The way we see them used in the machines, we have not identified cases where we believe they will cause a problem. We are continuing to review that, however.

Mrs. MORELLA. Would the Inspector General and the GAO representative agree?

Ms. CORCORAN. We are certainly following and monitoring what they are doing. One of the places I think you might find embedded chips are in some of the facilities and some of the controls for the various equipment and things. That is one of areas I spoke about earlier, where Postal still has work to do to determine exactly where this is leading.

We believe that Postal has done a fairly good inventory of known systems at this time, in terms of knowing where things are. So, we will continue to monitor that, but, at this point in time, we wouldn't be doing any additional work on embedded chips either, other than just monitoring it.

Mr. BROCK. The question of embedded chips is, I think, very difficult for many agencies to answer because it is difficult sometimes to determine the inventory. I think that, with respect to the mail process equipment that the Postal Service was discussing, that there is probably not as great a concern. And they have looked at that, and it is easier to look at.

One of the issues, though, sometimes with chips, is that even with the same model of equipment, that the manufacturer can substitute a different chip. So when you test one piece of equipment, in fact, you can have a problem in another piece because of a change in the chip.

In terms of where most embedded chips would be, I would agree with the Inspector General that they are probably located at the facilities. One of the things that the Postal Service needs to do is to, as they are going through some of the facilities, make a determination about where chips might occur, and what effect chip failure might have on postal operations at particular facilities. They need to weigh that against the time and the cost that it would take to do an exhaustive inventory, and whether or not doing such an inventory might, in fact, divert them from some other mission critical activities. This is something they have to put in the balance in the coming months.

Mrs. MORELLA. And the balance is probably necessary, but it is a tremendous concern. And I think that we kind of have blinders on. You have got to be able to try to identify where you can for remediation.

I would like to pick up on a report that GAO did rather recently, and it dealt with the fact that the Postal Service had had some difficulty holding onto some qualified staff and had been using some contractors. I am wondering if the use of contractors has exacerbated the cost of this remediation, and if it is a trend? And if we are saying that we are now using more and more contractual staff, is this making some kind of a statement with regard to the Postal system?

Mr. BROCK. We did a survey of all Government agencies about a year ago or so, and it was self-reported by the Postal Service that personnel issues were a concern to them. They have largely supplemented their staff with a large number of contract employees, I believe 1,200—that sticks in my mind. We are finding that most agencies, or at least the agencies I deal with, extensively rely on contractors because, in many cases, the specific skills are simply not in-house to run the business as usual, and then take on Y2K as well.

I think this is true in the Postal Service, that it was forced to rely on contractors in order to do the remediation that was required, that they simply did not have the staff on board, nor was it feasible in the short time remaining to hire them and bring them up to speed in order to do the vast amount of work that had to be done.

Ms. CORCORAN. The OIG is currently looking at the issue of contractors and how well these moneys are being spent, what contractors are doing. We hope to have a report out probably within the next month looking at this issue.

Mrs. MORELLA. That would be great if you would share the report with the three subcommittees who are here represented. I think it says something about the Postal Service and cost and efficiency.

I just have one final question, really, and it deals with—again, I think, Mr. Brock, I jotted down, I think you said it at some point during your testimony, that the business guys must make the decisions and not the "techies." Right?

Mr. BROCK. That is correct.

Mrs. MORELLA. Can you explain that?

Mr. BROCK. Sure. One of the reasons we are in this problem, some technical decisions were made about how to conserve space, and, you know, instead of using a four-digit date, a two-digit date was made. I am not quite sure that business owners ever really understood the long-term ramifications of that decision, even though I believe the technical people did understand that long-term ramification.

One of the major problems that I find across Government, when we are looking at information management, is the failure of business process owners to actually own the information technology and to make the hard decisions that have to be made in terms of "are we making the best investment?" "Are we making the right decision; are we spending wisely?"

As crunch time comes, and it will come, and decisions and tradeoffs are going to have to be made about, "Well, do we remediate this first, this first, or this first?" That needs to be done within the context of the business operations that those decisions support. And they are most appropriately made by the business process owners, not by the technology people that support the processes.

Mrs. MORELLA. It just seems to me that there has got to be sort of a partnership when you talk about balance.

Mr. BROCK. Oh, yes.

Mrs. MORELLA. Are you blaming the late Admiral Grace Hopper, who is the one who devised COBOL?

Mr. BROCK. I would never do that. [Laughter.]

Mrs. MORELLA. Is now looking——

Mr. BROCK. No. [Laughter.]

Mrs. MORELLA. I frankly think everybody knew. People have asked me, "Why didn't anybody know this early on?" And I said, "Of course they knew it." They just felt, either they wouldn't be around, or there would be some way to remediate it. But, at the moment, I think the business people were probably involved in terms of saving the space and, therefore, saving the money. I don't know.

But very interesting response, and I appreciate it. Thank you.

Thank you, Mr. Chairman.

Mr. MCHUGH. I thank the gentlelady.

This hearing is going to continue; I will leave it to you if that is the good news or the bad news.

The good news certainly is for you, I have a meeting with our Governor, and I deeply apologize, but I am going to yield the Chair to the gentleman from California, Mr. Horn.

But, before I do, I want to thank all of you for being here—Mr. Lorentz, Mr. Brock, and, of course, Ms. Corcoran.

This is obviously a very serious problem, one that we are deeply concerned about, and I know that the Postal Service understands the ramifications—real and perhaps somewhat imagined, but potentially real, as well.

We are looking forward to working with you, in hopes that this challenge can be met successfully and we appreciate GAO and the IG's office assistance in this matter.

Let me thank, last, all of my colleagues, but particularly my cochairs, Mr. Horn and Mrs. Morella, for their interest and their support and their leadership. So, thank you.

And with that, I turn the Chair over to Mr. Horn.

And Mr. Turner, too, as the ranking member, who has been here faithfully, and Mr. Wu—everybody, thank you. [Laughter.]

Mr. HORN [presiding]. I thank the gentleman, and we appreciate the patience of all of you when you are in one of these sessions.

I believe Mr. Wu has not had an opportunity to ask a few questions. The gentleman from Oregon, we are delighted to have you here.

Mr. WU. Thank you very much, Mr. Chairman.

I have only one question, and that is assuming that all of your efforts to become Y2K compliant are successful within the continental United States, and that we have a seamless transition. Will we have significant problems develop in Europe or Asia or Canada or Mexico? Besides the obvious problems with the international mail, what is the potential for foreign computer problems in their mail systems, or elsewhere, becoming our problems in the USPS?

Mr. WEIRICH. The biggest concern would be that it would, obviously, it would be a change in the flow of the mail. Every time that we have met with different mailer groups and looked at the things that could go wrong, our big fear for anybody—also includes people mailing things in the United States—is if they have problems, will those ripple down to us? Will we see a difference in their ability to prepare mail correctly or get us the mail on time to deliver it? It would be the same coming in from the foreign administrations. It would also present some challenges for us outbound.

Nick could probably address; we have had problems before. If a receiving administration is unable to handle what we give them, we have various processes to shut off that flow of mail until they are able to recover. I believe that is what we would get into.

Mr. BARRANCA. Yes. I understood your question to be more along the lines that, could there be a problem in a computer system offshore that could create a problem in one of our resident systems?

Mr. WU. And, also, given the number of vendors that you have, some of your vendors may be domestic, and some of your vendors may be foreign entities.

Mr. BARRANCA. Yes. I guess, you know, we are focusing our efforts on making sure that the physical piece can move from where it originates to where it "destinates," for those pieces that originate in this country. We feel we will be capable of continuing to deliver mail like we do it today in the year 2000.

We are also confident that mail that arrives in this country, we will be able to deliver to its destination the same as we do today.

So, when we are doing testing, doing remediation of our originating processing systems and our destinating processing systems, we are doing that for domestic and international mail.

I really can't address the concern of—if I understand your question, "What is the possibility of a computer problem in a foreign country creating a computer problem in this country that we haven't really anticipated?" That is not something that I would be able to address. I don't know if——

Mr. WU. Coming out of this industry sector in the relative recent past, I have a—let's just say I have a higher level of confidence in what we are doing in this country.

I am deeply concerned about what is happening in other countries, whether they are making the same type of efforts and having the same kind of progress.

And we are having difficulties with our schedules; I imagine that is a much greater problem in certain foreign countries, and that is where, you know, my personal focus is on trouble in any Y2K trouble scenario.

Mr. BARRANCA. Yes, as we addressed earlier, there are two international organizations that are focusing on those issues. That is the UPU, and, this is an item on their agenda. They represent 200 postal administrations around the world. And then there is the International Postal Corp., which represents 21 industrialized nations, and this is also an item for discussion on their agenda.

So, we are talking together about the potential issues. And, as Norm answered earlier, if you sort the countries into, say, three categories—those that are highly automated like we are, they are dealing with their Y2K problem in a similar manner as we are, looking at their systems, making sure they can work. Then there are other countries that don't rely as heavily on automated processing, and they rely more on a mix of automated and manual processing; to a lesser extent, the problems are as severe. And then the other countries that rely mainly on manual processing, to a great extent, the world won't change a whole lot as a result of the year 2000.

But there are two international organizations that are trying to address the problems jointly to see if they can learn from what the members are doing. We are an international unit as part of those discussions. And, as I volunteered earlier, we can make available more information for the record, as we have it.

Mr. WU. Thank you for an opportunity to get the issue on the table.

Mr. HORN. Thank you very much.

The gentleman from Maryland, Mr. Bartlett.

Mr. BARTLETT. Thank you.

I would like to return for a moment to the potential problem of embedded chips. It is my understanding that many of these chips are generic chips; that is, they are made with a variety of capabilities and the application to which you put them may use only one or a few of those capabilities.

The question has been raised that if you have a generic chip that has a date code, even though you are using it in a situation where the date is of no relevance like sorting mail—that sorting machine couldn't care what day of the week or year or millennium it was sorting mail in. What kind of confidence do we have that if an embedded chip contains a date code, that when we go past the year 2000, that, in fact, that chip is going to continue to work for the purposes for which you are using it?

It has been suggested that if there is a date code in the chip, even though you have no interest in the date, that that chip may possibly not work after the year 2000. Have you looked at that? And how many of your chips are generic chips, and what is the potential extent of this problem?

Mr. LORENTZ. I guess a general answer to the question is, if we are testing the specific equipment as one of our critical or severe, or even the 500 systems, and we are testing it for the date issue, that if it does have an embedded chip, we believe that that would properly exercise that chip.

As far as the more technical aspect of that, we can certainly address that, but we believe that the remediation of the overall system should take that into account.

Mr. BARTLETT. I have trouble understanding how we check to see if a generic chip with a date code capability, which we aren't assessing and, therefore, can't exercise how we are going to be sure that that chip is going to continue to perform the functions that we need of it in the year 2000 if we don't know whether or not it is going to continue to function if it has a built-in date code.

I don't understand how we can test for that.

Mr. LORENTZ. I think we have two issues here: No. 1, we are testing the equipment capability; we are doing that.

Mr. BARTLETT. But, you are testing it today, not in the year 2000.

Mr. LORENTZ. And then the other issue that we need to address, as the previous conversation, is the issue of individual chips, managing the individual chip issue, and we accept that.

Yes, we are simulating; when we go through simulation testing, we are taking all of the automation equipment in the systems into year 2000. So, we are exercising those chips as part of simulation.

Mr. BARTLETT. But, "how do we advance the clock in the chip if the date code in the chip is not something we are interested in and not something we are accessing?" is the question that has been raised to me.

Mr. LORENTZ. By advancing the clock in the rest of the system.

Mr. BARTLETT. I still am less than sanguine about our knowledge of embedded chips and how much of a problem they are going to be in the year 2000.

I thank you very much.

Mr. HORN. I thank the gentleman.

Let me just ask a few closing questions, do a little bit of administrative bit, and then do a short closing statement.

Just for the record at this point, how many systems have you defined as "mission critical" systems within the U.S. Postal Service? What is the number of those?

Mr. LORENTZ. 152 systems.

Mr. HORN. OK.

How about ones that are not "mission critical?" What other systems do you have?

Mr. LORENTZ. 349.

Mr. HORN. 349.

And does then when you add them up, that is essentially 501 or so?

Mr. LORENTZ. That is correct. Yes, sir.

Mr. HORN. Yes.

Do you find as you go along that maybe some of those that weren't defined originally as "mission critical" are "mission critical," when you put the whole context together?

Mr. LORENTZ. We actually, as we have worked through our three-step process, we have actually both included or excluded systems as we have gone along, so the number, for instance, could increase to 153 or could decrease to 151. So there has been that kind of a situation that has occurred; yes.

Mr. HORN. Seems to me, as we go through this experience, which is once in a millennium, hopefully, that we also learn that you want to avoid "garbage in" and "garbage out" by saying, "Do we really need this system? Could we merge it with something else?"

Is that going on within the Postal Department, just as a matter of organization?

Mr. LORENTZ. Absolutely, and we have actually retired—specifically, retired—some of the systems.

Mr. HORN. Let me ask a few questions. I hope you haven't covered it when I had to be unavoidably detained.

Do we have a master schedule? Is fixing your computer systems under that schedule?

Mr. LORENTZ. Yes.

Mr. HORN. Well, if so, does the schedule have certain provisions for business continuity and contingencies?

Mr. LORENTZ. We specifically have constructed an approach around three specific process areas—business continuity and recovery or contingency, the systems' remediation, as well as doing communication.

We have—just to kind of give you an idea as to how that fits into the management structure—in every management committee meeting that the Postmaster General holds, there is a standing agenda item on Y2K mitigation.

There is a subgroup called the Executive Council Y2K that is chaired by the Deputy Postmaster General, Mike Coughlin, on the PMG's behalf, where those specific process owners, as well as the what we call "portfolio owners," which are senior vice presidents, the business process owners, come in and specifically review in a very structured, consistent way exactly what the current situation is with those systems. And that is consistent with the suggestions and findings from the Inspector General's office. So those are in progress, as well as, we are explicitly creating for our own usage a "war room," if you will, where we have a very consistent graphic representation for anybody at any time. They can walk in and see what the current state of the Y2K approach is.

Mr. HORN. What is the view of the General Accounting Office on this, Mr. Brock? Have you seen the master schedule?

Mr. BROCK. It is my understanding, Mr. Horn, that the master schedule had not been developed at the time of our final exit last week, that they were working on that, that many of the individual business processes had detailed schedules. Our concern by not having an overall master schedule is that it is easier to suboptimize and that you can't look at the relationship of one schedule versus another to make sure that things are coming together.

Again, it was my understanding that the master schedule was being worked on and that it was near completion, but we think that something like that needs to be ready as soon possible so that it can be managed against.

Mr. HORN. How about the Inspector General, Ms. Corcoran, have you seen the master schedule?

Ms. CORCORAN. No, sir; we have not.

Mr. HORN. You have not. Is that because it has been done in the last week, maybe in preparation for the hearing, or what?

Ms. CORCORAN. I can't really say. I knew they were working on it, but I have not seen a copy of it, nor have my people.

Mr. HORN. Did they send any drafts around to either GAO or the Inspector General?

Ms. CORCORAN. No, sir.

Mr. HORN. OK.

Well, it seems to me when you go about, as I have said, from day one of April 1996 when I got into this, this is a management problem. It is not a bunch of "techies" running loose. If it is a bunch of "techies" running loose, that is part of the problem.

That is why IRS failed years ago with $4 billion down the drain. That is why FAA failed 5 years ago when I was a freshman in this Congress and $4 billion went down the drain. And you could walk into the room, and I knew at 10 seconds that there was no management to that operation. And everybody had a new idea every morning, "so let's try the new idea"—never closure, never getting one thing related to the next.

It seems to me, before you even start in this thing, you have got to have some schedule of what is most important. What is the limiting factor in relation to all other systems that you have got to worry about? Is there a few real trunk systems that everything else depends on, and if they go out, you can forget all the peripheral business?

So, how long have we been working on that master schedule?

Mr. LORENTZ. I would say that, specifically, we have gone through an evolution, and I certainly think it is as my colleagues here portray it. Initially, we underestimated the complexity. We did approach this from a systems perspective initially. We have evolved that approach. We now, in a very—and I mean the Postmaster General makes it clear every time he talks about this—this is a business problem. So, Mr. Chairman, I absolutely—we absolutely share your perspective on that.

Are the plans that we have in place perfect? No. Are they under construction?

Are they going to be continuously improved as we deal with this business problem? Absolutely, yes.

And I would say that we are comfortable we are headed in the right direction, but we are not done.

Mr. HORN. How many pages is there in the current draft of the master schedule?

Mr. LORENTZ. I do not know the answer to that question.

Mr. HORN. Does anybody with you know it?

Mr. LORENTZ. No.

Mr. HORN. All right.

Mr. LORENTZ. We can provide that.

Mr. HORN. I am saving a big space in the records for, within a week, getting that copy of the master schedule, without objection, and insert it in the record at this point.

My next question is this—and maybe it has been covered, but just give me a brief answer—who is the contingency for the Postal Service?

You are the contingency for everybody else we review with our staff, known as the executive branch of the Federal Government. They have sort of got you as No. 1. And a lot of them don't know what to do anyhow. But those that say, "Yes; we can check it off."—you get a plus; you at least have an idea that if everything fails in the computers, you can mail the stuff.

What happens to you?

Mr. LORENTZ. We really——

Mr. HORN. Who is your contingency?

Mr. LORENTZ. We believe that the "buck stops here."

Mr. HORN. So that is it? There is no contingency? Or, is there another alternative way around?

Mr. LORENTZ. Word of mouth. I mean we do not——

Mr. HORN. Smoke signals on hills, or what are we down to?

Mr. LORENTZ [continuing]. We believe we are the ultimate contingency; yes.

We certainly are accepting that responsibility. [Laughter.]

Mr. HORN. Well, yes. One of my colleagues mentioned the Pony Express, and 30 years ago, I was living in this city and a good friend of mine, Jim Boren, president of the International Association of Professional Bureaucrats, challenged the post office on mailing that he would put in Baltimore and Philadelphia to Washington, and he did it by horseback, and they did it the regular way. He won. That did hit every paper in America. And Mr. Boren is teaching students how to do those things, I am sure, wherever he is posted in Oklahoma or Texas.

But that is one contingency, maybe, that might be possible, if everything else happens.

Now, what assurances do we have that the mail will be going through? I mean you have got all this tremendous thing that I mentioned earlier, known as the "backlog" at Christmas and all the rest of the third class mail and second class mail and all that. Have we got some assurance here that the mail will go through?

Mr. LORENTZ. We believe that the plans and the resources that we have in place, we have a high degree of confidence that we can deliver the mail. As well as our experience has been articulated by Mr. Barranca, we are, some can say, an expert at contingency planning to weather elements and other disruptions. So we do have experience at dealing with those issues as well.

[The information referred to follows:]

Norman E. Lorentz
Chief Technology Officer
Senior Vice President

UNITED STATES
POSTAL SERVICE

March 12, 1999

Honorable John McHugh
Chairman
Subcommittee on the Postal Service
Committee on Government Reform
House of Representatives
Washington, DC 20515-6246

Dear Mr. Chairman:

I am pleased to enclose a copy of the Postal Service's master calendar for its Year 2000 initiative, which was requested by Chairman Stephen Horn of the Subcommittee on Government Management, Information, and Technology at the February 23 joint hearing examining the Postal Service's Year 2000 readiness.

The calendar is organized into three parts. The first consists of a broad overview of our program. This is followed by our level-one program plan, which incorporates the 31 major work segments of the overall plan. The third part of the calendar provides a detailed look at each of these 31 segments. Also included is a glossary, which can assist in understanding some of the technical and specialized terms that may not be defined within the text of the calendar document itself.

While we have worked to produce a calendar that will serve to direct and focus our key Year 2000 activities, we recognize that this is a dynamic process that relies on a great many interdependencies among systems, components, and processes. As a result, some milestones may require adjustment as we proceed with implementation of our plan. Should you have any questions regarding these materials, please let me know.

We appreciate your interest in the Postal Service's progress in meeting the challenges of the Year 2000 computer problem.

N E Lorentz

Norman E. Lorentz

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***NOTE**
The master calendar that is requested is available at the Subcommittee on the Postal Service and there is also an updated master calendar since the February 23rd hearing that is available.

Mr. HORN. OK. Well, we wish you well on that.

Let me just say what I think I have learned in looking at the papers, as well as hearing the testimony.

We have learned that you are making progress in solving the year 2000 technology challenges, yet you still have a long way to go, and it is in a very short period. We are talking about 311 days from now is the real test, and I am glad you are simulating.

In response to the gentleman from Maryland, that is the only way you are going to know in advance if you have got a real serious problem on microchips that people don't even know about, whether it is the elevators in your building or your others buildings around the country. They are often by microchips.

And some of the programming and some of the firms have gone out of business in the older buildings when you phone up, but the medical profession is doing a pretty good job in this area. They have a website, and they started with the emergency rooms. And when we had a field hearing in Cleveland with the Cleveland Clinic, one of the outstanding medical facilities and programs in the country, that they are checking all the design numbers and everything else, calling the manufacturers so people don't have to trip over everybody in this. They do it once and if they have got data tested against it and put it in if it is new and don't worry about it; just use the other fellows that we had in 2 months ago.

So I think that is certainly one thing that would be well to do, to look at either a website with other industrial groups, that I know Mr. Koskinen has. Are you involved with Mr. Koskinen's operation?

Mr. LORENTZ. Yes, we are.

Mr. HORN. Is it in a separate team that you are there, or is the post office just standing alone on here?

Mr. LORENTZ. We are involved at two levels. The Postmaster General is involved in the CIO Council. Mr. Weirich represents us on the President's Council. So we are involved at both levels. And there are other industry representatives involved.

Mr. HORN. Good.

Well, what leads me to that concern in the short period of time, is the obvious. You have got many systems, more than almost any place but the Department of Defense and perhaps HHS, Health and Human Services. But you have got 8,000 suppliers that have to relate to your computing, I would think, in terms of their inventory control and the Japanese method of inventory, so you don't have to build many storage sheds everywhere, but keep it moving. Do you feel there is a problem there on trying to make sure that they are converted, so when they interact with your system—if they do interact with it—that they don't pollute the system because they haven't done their job?

Mr. LORENTZ. We do have a very significant issue with the suppliers' side that we are aggressively pursuing with plan, but it is an area of concern.

Mr. HORN. Good.

Any last comments any member might want to make now that you have heard everybody else's comments?

Inspector General, do you have any thoughts on this?

Ms. CORCORAN. We are going to continue to monitor——

Mr. HORN. OK.

Ms. CORCORAN [continuing]. And provide you information——

Mr. HORN. Good.

General Accounting Office have any other comments?

Mr. BROCK. We will continue as always, Mr. Chairman, to monitor, not only the Postal Service but the other agencies that we have a responsibility for, and reporting back to you on the progress of agencies all across the Government.

Mr. HORN. Very good.

Let me just thank the staff on both sides of the aisle that put the hearing together: J. Russell George, the staff director and chief counsel for the Subcommittee on Government Management, Information, and Technology. He has given up on us, I think, and headed to the next hearing. Mr. Ryan is to my left, the senior policy director on my subcommittee. He came to us from the General Accounting Office. Bonnie Heald, director of communication, professional staff member, sitting way in back, so she has a decent seat and doesn't have to have us tripping over her and vice versa. Mason Alinger, our reliable clerk is here that arranges all these hearings. And then we have got a lot of free labor and help with college interns, Paul Wicker, Kacey Baker, and Richard Lukas; we thank you, ladies and gentlemen.

And for the minority, we have Faith Weiss and Jean Gosa, and we thank you all for your usual professional help.

And from the Postal Service Subcommittee, we have Robert Taub, the Postal Subcommittee staff director; Heea Vazirani-Fales, the Postal professional staff member; and Abby Hurowitz, the Postal clerk.

From the Technology Subcommittee of the Committee on Science, we have Richard Russell, the staff director of the Technology Subcommittee; Ben Wu, the member of the professional staff there; and then, Joe Sullivan is the clerk to the committee.

And I have here Denise Wilson for the minority staff, professional staff member.

And last but not least, our brave court reporter, Sarah Swanson. And when you have all that many people on a panel, I don't know how you keep track of them. [Laughter.]

And thank you all.

And with that, this hearing is adjourned.

[Whereupon, at 12:22 p.m., the subcommittees adjourned.]

[The prepared statement of Hon. Chaka Fattah follows:]

Statement of the Honorable Chaka Fattah
Ranking Minority Member
Subcommittee on the Postal Service

Joint Hearing between the Subcommittee on the Postal Service,
and Government Management, Information and Technology

"The Impact of Y2K: Can the Postal Service Deliver?"

Tuesday, February 23, 1999

Good morning. Today's hearing is very timely. We have only 311 days to make sure that the United States Postal Service delivers without interruption or disruption on January 1, 2000, and beyond. To that end, I thank my colleagues, Chairmen McHugh and Horn and Chairwoman Morella for scheduling this important hearing.

The postal service is BIG and its operations massive. It is one of the few Federal agencies that actually touch the lives of American citizens every day. The United States Postal Service, with its over 788,000 employees delivers 640 million pieces of mail to "everyone, everywhere, everyday." Currently the postal service operates 174 processing and distribution centers, 34 air mail centers, 21 bulk mail centers and over 38,000 local post offices, branches and stations. Its information systems encompass every aspect of postal operations – from sorting, processing and distributing the mail to dealing with business, residential and Federal customers, managing cash flows, upgrading and modernizing facilities and interfacing with well over 10,000 internal and external suppliers.

With that as our backdrop, it is imperative that the postal service successfully meet the challenge of making its computer systems Y2K compliant in order to avoid disruption in mail delivery and services. There is no question that the postal service got off to a rocky and slow start in assessing its Y2K problems. However, I must commend

Deputy Postmaster General Michael Coughlin for taking the initiative by asking the United States Postal Service Inspector General in 1997, to determine and monitor the postal service's efforts to achieve Y2K compliance. To its credit, the postal service has finally recognized the enormity of the Y2K matter and engaged the attention of PMG William Henderson and other senior management. Unfortunately, the year and a half independent review and assessment by the IG has been extremely critical of postal service efforts on Y2K compliance problems.

Based upon the IG reports, the postal service is in need of deliverance. Their Y2K project is at least a year behind schedule, critical information systems have not been correctly identified or tested for Y2K compliance, Y2K status reporting is not always accurate and finally, the quality and reliability of Y2K information is neither. Adding insult to injury, the postal service has yet to establish its own business continuity and contingency plan for moving the mail. Frankly, this is disturbing because both the private sector and Federal government may have to rely upon the postal service as a contingency if their systems fail on January 1, 2000.

The postal service manages over 600 system applications related to internal and external operations. Over **one hundred million** lines of programming codes are imbedded in these systems. Out of the 600 systems, at least 152 have been identified as "severe critical". Although the postal service has finished 120 of the 152, **only 38** have been verified and completed! That leaves over 100 systems to be remediated, tested, and independently verified by March 31, 1999, the date the Office of Management and Budget has established as a government-wide goal for reaching 100 percent Y2K compliance.

We have a long way to go.

With that said, I welcome Inspector General Karla Corcoran and Deputy Assistant IG, Richard Chambers. You have done a yoeman's job of assessing Y2K and the postal service. You have our gratitude and thanks.

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